



## ANALYSIS REPORT

Prepared by:

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Prepared for:

CRG-The Chemours Co. FC, LLC  
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Report Date: December 14, 2017 15:40

**Project: CWK - DE RIVER NAPL DELINEATION PHASE III**

Account #: 07032  
Group Number: 1871371  
PO Number: LBIO-67047  
State of Sample Origin: NJ

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Respectfully Submitted,



Nancy Jean Bornholm  
Principal Specialist

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## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
D15-BOR-21-(0-0.5) Soil	11/04/2017 10:40	9300726
D15-BOR-21-(0.5-1.0) Soil	11/04/2017 10:45	9300727
D15-BOR-21-(4.5-5.0) Soil	11/04/2017 11:15	9300728
D15-BOR-21-(6.0-6.5) Soil	11/04/2017 11:05	9300729
D15-BOR-21-(6.0-6.5) MS Soil	11/04/2017 11:05	9300730
D15-BOR-21-(6.0-6.5) MSD Soil	11/04/2017 11:05	9300731
D15-BOR-21-(6.0-6.5) Dupl Soil	11/04/2017 11:05	9300732
D15-BOR-21-(7.8-8.0) Soil	11/04/2017 11:25	9300733
D15-BOR-21-(8.0-8.3) Soil	11/04/2017 11:30	9300734
CWKDERIVER3-EQBLK-4 Blank Water	11/04/2017 08:20	9300735
CWKDERIVER3-TBLK-4 Blank Water	11/04/2017 08:20	9300736

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



## DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Eurofins Lancaster Laboratories Environmental

Client: CRG-The Chemours Co. FC, LLC

Project: CWK - DE RIVER NAPL DELINEATION PHASE III

Sampling Date(s): 11/04/17

Laboratory Sample ID(s): 9300726-9300736

List DKQP Methods Used (e.g., 8260, 8270, et cetera)

ASTM D422; SM 2540 G-1997 %Moisture Calc; SW-846 6010B; SW-846 6020; SW-846 7470A; SW-846 7471A; SW-846 8260B; SW-846 8260FRN Modified; SW-846 8270C; SW-846 9060A; SW-846 9060A modified

		Yes or No
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	Yes
1A	Were the method specified handling, preservation, and holding time requirements met?	Yes
1B	<b>EPH Method:</b> Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes
3	Were samples received at an appropriate temperature (</=6° C)?	Yes
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	No
5A	Were reporting limits* specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	Yes
5B	Were these reporting limits met?	No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	Yes

**Notes:** For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

\*The Limit of Quantitation (LOQ) meets requirements for the Reporting Limit (RL) as defined in the NJDEP Data of Known Quality performance standards, unless otherwise noted.



Dorothy M. Love  
Director



Lancaster Laboratories  
Environmental

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12/14/2017

Project Name: CWK - DE RIVER NAPL DELINEATION PHASE III  
ELLE Group #: 1871371

**General Comments:**

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

For dual column analyses, the surrogate (for multi-surrogate tests, at least one surrogate) must be within the acceptance limits on at least one of the two columns.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

**Analysis Specific Comments:****SW-846 8260B, GC/MS Volatiles****Sample #s: 9300728**

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

**Sample #s: 9300733**

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The concentration reported for Chlorobenzene is estimated since it exceeds the calibration range of the instrument when determined by the low level method, but is less than the quantitation limit when determined by the high level method. The result reported is from the high level determination.

**Sample #s: 9300735, 9300736**

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The NJ DKQP required reporting limit could not be attained for 1,2-Dibromoethane.

**Sample #s: 9300726, 9300727**

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:  
The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is

reported from the initial trial.

#### Sample #s: 9300729, 9300730, 9300731, 9300734

The percent drift for the following is >20% in the continuing calibration verification standard associated with this sample: chloroethane.

The NJ DKQP required reporting limit could not be attained for 1,2-dibromoethane.

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### Batch #: R173171AA (Sample number(s): 9300729-9300731, 9300734 UNSPK: 9300729)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: Chlorotrifluoroethene

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: Dichlorodifluoromethane, Chlorobenzene

#### Batch #: X173182AA (Sample number(s): 9300726-9300728, 9300733)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Propionitrile

#### SW-846 8260FRN Modified, GC/MS Volatiles

#### Sample #s: 9300726, 9300727, 9300728, 9300729, 9300733, 9300734, 9300735, 9300736

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

#### Batch #: J173111AA (Sample number(s): 9300735-9300736)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 1,1,2-Trifluoroethane, Chlorofluoromethane, Dichlorotrifluoroethane, 1,2-Dichlorotrifluoroethane, 1,2-Dichloro-1-fluoroethane

#### Batch #: J173171AA (Sample number(s): 9300726-9300728)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Fluoromethane

#### Batch #: J173181AA (Sample number(s): 9300729-9300731, 9300733-9300734 UNSPK: 9300729)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Fluoromethane

#### SW-846 8270C, GC/MS Semivolatiles

#### Sample #s: 9300726, 9300727, 9300728, 9300729, 9300730, 9300731, 9300733, 9300734

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### Sample #: 9300735

The recovery for a target analyte(s) in the Laboratory Control

Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial. Similar results were obtained in both trials.

Z=The response for a target analyte(s) in the initial calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

Batch #: 17310WAE026 (Sample number(s): 9300735)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 4-Aminobiphenyl

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: 1-Naphthylamine, 2-Naphthylamine, o-Toluidine, 4-Chloroaniline, 2-Methylnaphthalene, 2,4-Dimethylphenol, 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene, Hexachlorocyclopentadiene, 2-Chloronaphthalene, Dimethylphthalate, Benzidine, 2-Methylphenol, 2,2'-oxybis(1-Chloropropane)

The relative percent difference(s) for the following analyte(s) in the LCS/LCSD were outside acceptance windows: 2-Naphthylamine, 2,4-Dinitrophenol, Benzidine. When the individual % recovery is within the acceptance limits, the data is reported.

Batch #: 17314SLE026 (Sample number(s): 9300726-9300731, 9300733-9300734 UNSPK: 9300729)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: 2-Chloronaphthalene, 4-Aminobiphenyl

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1-Naphthylamine, 2-Naphthylamine, o-Toluidine, 4-Chloroaniline

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: 4-Aminobiphenyl

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: 3,3'-Dichlorobenzidine, 1-Naphthylamine, 2-Naphthylamine, o-Toluidine, 4-Chloroaniline

**SW-846 6010B, Metals**

Sample #s: 9300735

The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.

Batch #: 173100570504 (Sample number(s): 9300735 UNSPK: P292995 BKG: P292995)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Iron

Batch #: 173100570805 (Sample number(s): 9300726-9300727 UNSPK: P300729 BKG: P300729)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Aluminum, Iron, Magnesium, Potassium

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Aluminum, Iron, Magnesium, Zinc

**SW-846 6020, Metals**

Sample #s: 9300726, 9300727, 9300735

The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.

Batch #: 173100570805A (Sample number(s): 9300726-9300727 UNSPK: P300729 BKG: P300729)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Manganese, Lead

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: Antimony

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: Lead

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Copper, Manganese, Nickel, Thallium

Batch #: 173100570805D (Sample number(s): 9300726-9300727 UNSPK: P300729 BKG: P300729)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Barium

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: Barium

Batch #: 173100605001A (Sample number(s): 9300735 UNSPK: P298505 BKG: P298505)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Arsenic, Copper, Lead

**SW-846 9060A, Wet Chemistry**Sample #s: 9300735

The reported result is the average of the following trials:

0 mg/l  
0 mg/l  
0 mg/l  
0 mg/l

**SW-846 9060A modified, Wet Chemistry**Sample #s: 9300728, 9300729, 9300732

Due to the nature of this sample matrix, the sample cup was filled to capacity with less than 1000 mg of sample being used. The lowered sample weight has resulted in a raised reporting limit.

Batch #: 17320667631A (Sample number(s): 9300729-9300732 UNSPK: 9300729 BKG: 9300729)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: TOC Solids/Sludges Combustion

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	<b>Acetone</b>	67-64-1	<b>180</b>	16	45	1.2
10237	Benzene	71-43-2	1 U	1	11	1.2
10237	Bromodichloromethane	75-27-4	2 U	2	11	1.2
10237	<b>2-Butanone</b>	78-93-3	<b>18 J</b>	9	23	1.2
10237	n-Butylbenzene	104-51-8	2 U	2	11	1.2
10237	sec-Butylbenzene	135-98-8	2 U	2	11	1.2
10237	tert-Butylbenzene	98-06-6	2 U	2	11	1.2
10237	<b>Carbon Disulfide</b>	75-15-0	<b>4 J</b>	2	11	1.2
10237	Carbon Tetrachloride	56-23-5	2 U	2	11	1.2
10237	<b>Chlorobenzene</b>	108-90-7	<b>57</b>	2	11	1.2
10237	Chloroethane	75-00-3	5 U	5	11	1.2
10237	Chloroform	67-66-3	2 U	2	11	1.2
10237	Chloromethane	74-87-3	5 U	5	11	1.2
10237	2-Chlorotoluene	95-49-8	2 U	2	11	1.2
10237	4-Chlorotoluene	106-43-4	2 U	2	11	1.2
10237	Chlorotrifluoroethene	79-38-9	5 U	5	11	1.2
10237	Dibromochloromethane	124-48-1	2 U	2	11	1.2
10237	1,2-Dibromoethane	106-93-4	2 U	2	11	1.2
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>7 J</b>	2	11	1.2
10237	1,3-Dichlorobenzene	541-73-1	2 U	2	11	1.2
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>4 J</b>	2	11	1.2
10237	Dichlorodifluoromethane	75-71-8	5 U	5	11	1.2
10237	1,1-Dichloroethane	75-34-3	2 U	2	11	1.2
10237	1,2-Dichloroethane	107-06-2	2 U	2	11	1.2
10237	1,1-Dichloroethene	75-35-4	2 U	2	11	1.2
10237	cis-1,2-Dichloroethene	156-59-2	2 U	2	11	1.2
10237	trans-1,2-Dichloroethene	156-60-5	2 U	2	11	1.2
10237	1,2-Dichloroethene (Total)	540-59-0	2 U	2	11	1.2
10237	Dichlorofluoromethane	75-43-4	5 U	5	11	1.2
10237	1,2-Dichloropropane	78-87-5	2 U	2	11	1.2
10237	1,1-Dichloropropene	563-58-6	2 U	2	11	1.2
10237	cis-1,3-Dichloropropene	10061-01-5	2 U	2	11	1.2
10237	Ethylbenzene	100-41-4	2 U	2	11	1.2
10237	Freon 113	76-13-1	5 U	5	23	1.2
10237	Freon 133a	75-88-7	5 U	5	11	1.2
10237	n-Hexane	110-54-3	2 U	2	11	1.2
10237	2-Hexanone	591-78-6	7 U	7	23	1.2
10237	Isobutyl Alcohol	78-83-1	230 U	230	560	1.2
10237	Isopropylbenzene	98-82-8	2 U	2	11	1.2
10237	p-Isopropyltoluene	99-87-6	2 U	2	11	1.2
10237	Methacrylonitrile	126-98-7	11 U	11	110	1.2
10237	Methyl Methacrylate	80-62-6	2 U	2	11	1.2

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10237	Methyl Tertiary Butyl Ether	1634-04-4	1 U	1	11	1.2
10237	4-Methyl-2-pentanone	108-10-1	7 U	7	23	1.2
10237	Methylene Chloride	75-09-2	5 U	5	11	1.2
10237	Propionitrile	107-12-0	68 U	68	230	1.2
10237	n-Propylbenzene	103-65-1	2 U	2	11	1.2
10237	Styrene	100-42-5	2 U	2	11	1.2
10237	1,1,1,2-Tetrachloroethane	630-20-6	2 U	2	11	1.2
10237	1,1,2,2-Tetrachloroethane	79-34-5	2 U	2	11	1.2
10237	Tetrachloroethene	127-18-4	2 U	2	11	1.2
10237	Tetrahydrofuran	109-99-9	9 U	9	18	1.2
10237	Toluene	108-88-3	2 U	2	11	1.2
10237	1,1,1-Trichloroethane	71-55-6	2 U	2	11	1.2
10237	1,1,2-Trichloroethane	79-00-5	2 U	2	11	1.2
10237	Trichloroethene	79-01-6	2 U	2	11	1.2
10237	Trichlorofluoromethane	75-69-4	5 U	5	11	1.2
10237	1,2,4-Trimethylbenzene	95-63-6	2 U	2	11	1.2
10237	1,3,5-Trimethylbenzene	108-67-8	2 U	2	11	1.2
10237	Vinyl Chloride	75-01-4	2 U	2	11	1.2
10237	m+p-Xylene	179601-23-1	2 U	2	11	1.2
10237	o-Xylene	95-47-6	2 U	2	11	1.2
10237	Xylene (Total)	1330-20-7	2 U	2	11	1.2

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:

The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	2 U	2	11	1.13
13101	Chlorodifluoromethane	75-45-6	4 U	4	11	1.13
13101	Chlorofluoromethane	593-70-4	2 U	2	11	1.13
13101	Chloropentafluoroethane	76-15-3	32 UZ	32	110	1.13
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	2 U	2	11	1.13
13101	1,2-Dichloro-1-fluoroethane	430-57-9	2 U	2	11	1.13
13101	Dichlorotetrafluoroethane	76-14-2	4 U	4	11	1.13
13101	1,2-Dichlorotrifluoroethane	354-23-4	2 U	2	11	1.13
13101	Dichlorotrifluoroethane	306-83-2	2 U	2	11	1.13
13101	Fluoromethane	593-53-3	6 UZ	6	21	1.13
13101	Freon 113a	354-58-5	11 U	11	42	1.13
13101	1,1,2-Trifluoroethane	430-66-0	4 U	4	11	1.13

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	Vinyl fluoride	75-02-5	13 U	13	42	1.13
Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.						
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	<b>Acenaphthene</b>	83-32-9	<b>17 J</b>	6	32	1
10723	<b>Acenaphthylene</b>	208-96-8	<b>18 J</b>	6	32	1
10723	Acetophenone	98-86-2	31 U	31	62	1
10723	4-Aminobiphenyl	92-67-1	310 U	310	930	1
10723	Aniline	62-53-3	310 U	310	930	1
10723	<b>Anthracene</b>	120-12-7	<b>25 J</b>	6	32	1
10723	Benzidine	92-87-5	470 U	470	930	1
10723	<b>Benzo(a)anthracene</b>	56-55-3	<b>78</b>	6	32	1
10723	<b>Benzo(a)pyrene</b>	50-32-8	<b>80</b>	6	32	1
10723	<b>Benzo(b)fluoranthene</b>	205-99-2	<b>95</b>	6	32	1
10723	<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>57</b>	6	32	1
10723	<b>Benzo(k)fluoranthene</b>	207-08-9	<b>50</b>	6	32	1
10723	1,1'-Biphenyl	92-52-4	31 U	31	62	1
10723	4-Bromophenyl-phenylether	101-55-3	31 U	31	62	1
10723	Butylbenzylphthalate	85-68-7	120 U	120	310	1
10723	Di-n-butylphthalate	84-74-2	120 U	120	310	1
10723	Carbazole	86-74-8	31 U	31	62	1
10723	4-Chloro-3-methylphenol	59-50-7	31 U	31	62	1
10723	4-Chloroaniline	106-47-8	62 U	62	120	1
10723	bis(2-Chloroethoxy)methane	111-91-1	31 U	31	62	1
10723	bis(2-Chloroethyl)ether	111-44-4	31 U	31	62	1
10723	2-Chloronaphthalene	91-58-7	12 U	12	62	1
10723	2-Chlorophenol	95-57-8	31 U	31	62	1
10723	4-Chlorophenyl-phenylether	7005-72-3	31 U	31	62	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	31 U	31	62	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	<b>Chrysene</b>	218-01-9	<b>100</b>	6	32	1
10723	<b>Dibenz(a,h)anthracene</b>	53-70-3	<b>18 J</b>	6	32	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Dibenzofuran	132-64-9	31 U	31	62	1
10723	3,3'-Dichlorobenzidine	91-94-1	190 U	190	620	1
10723	2,4-Dichlorophenol	120-83-2	31 U	31	62	1
10723	Diethylphthalate	84-66-2	120 U	120	310	1
10723	2,4-Dimethylphenol	105-67-9	31 U	31	62	1
10723	Dimethylphthalate	131-11-3	120 U	120	310	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	310 U	310	930	1
10723	2,4-Dinitrophenol	51-28-5	560 U	560	1,900	1
10723	2,4-Dinitrotoluene	121-14-2	120 U	120	310	1
10723	2,6-Dinitrotoluene	606-20-2	31 U	31	62	1
10723	1,4-Dioxane	123-91-1	190 U	190	620	1
10723	Diphenyl ether	101-84-8	31 U	31	62	1
10723	1,2-Diphenylhydrazine	122-66-7	31 U	31	62	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	120 U	120	320	1
10723	<b>Fluoranthene</b>	206-44-0	<b>110</b>	6	32	1
10723	<b>Fluorene</b>	86-73-7	<b>17 J</b>	6	32	1
10723	Hexachlorobenzene	118-74-1	6 U	6	32	1
10723	Hexachlorobutadiene	87-68-3	31 U	31	62	1
10723	Hexachlorocyclopentadiene	77-47-4	310 U	310	930	1
10723	Hexachloroethane	67-72-1	62 U	62	310	1
10723	<b>Indeno(1,2,3-cd)pyrene</b>	193-39-5	<b>59</b>	6	32	1
10723	Isophorone	78-59-1	31 U	31	62	1
10723	<b>2-Methylnaphthalene</b>	91-57-6	<b>35</b>	6	32	1
10723	2-Methylphenol	95-48-7	31 U	31	62	1
10723	<b>4-Methylphenol</b>	106-44-5	<b>95</b>	31	62	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10723	<b>Naphthalene</b>	91-20-3	<b>93</b>	6	32	1
10723	1-Naphthylamine	134-32-7	310 U	310	930	1
10723	2-Naphthylamine	91-59-8	310 U	310	930	1
10723	2-Nitroaniline	88-74-4	31 U	31	62	1
10723	3-Nitroaniline	99-09-2	120 U	120	310	1
10723	4-Nitroaniline	100-01-6	120 U	120	310	1
10723	Nitrobenzene	98-95-3	31 U	31	62	1
10723	2-Nitrophenol	88-75-5	31 U	31	62	1
10723	4-Nitrophenol	100-02-7	310 U	310	930	1
10723	N-Nitrosodimethylamine	62-75-9	120 U	120	310	1
10723	N-Nitroso-di-n-propylamine	621-64-7	31 U	31	62	1
10723	N-Nitrosodiphenylamine	86-30-6	31 U	31	62	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Di-n-octylphthalate	117-84-0	120 U	120	310	1
10723	Parathion	56-38-2	310 U	310	930	1
10723	Pentachlorobenzene	608-93-5	31 U	31	62	1
10723	Pentachlorophenol	87-86-5	62 U	62	320	1
10723	<b>Phenanthrene</b>	85-01-8	<b>61</b>	6	32	1
10723	Phenol	108-95-2	31 U	31	62	1
10723	<b>Pyrene</b>	129-00-0	<b>110</b>	6	32	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	120 U	120	310	1
10723	o-Toluidine	95-53-4	370 U	370	1,200	1
10723	<b>1,2,4-Trichlorobenzene</b>	120-82-1	<b>48 J</b>	31	62	1
10723	2,4,5-Trichlorophenol	95-95-4	31 U	31	62	1
10723	2,4,6-Trichlorophenol	88-06-2	31 U	31	62	1

The project QA/QC requirements were not met.  
Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Metals	<b>SW-846 6010B</b>	mg/kg	mg/kg	mg/kg		
01643	<b>Aluminum</b>	7429-90-5	<b>14,500</b>	13.9	31.2	1
01650	<b>Calcium</b>	7440-70-2	<b>3,420</b>	5.19	31.2	1
01654	<b>Iron</b>	7439-89-6	<b>24,700</b>	12.5	31.2	1
01657	<b>Magnesium</b>	7439-95-4	<b>4,680</b>	3.79	15.6	1
01662	<b>Potassium</b>	7440-09-7	<b>2,360</b>	26.0	77.9	1
01667	<b>Sodium</b>	7440-23-5	<b>957</b>	26.0	156	1
06972	<b>Zinc</b>	7440-66-6	<b>166</b>	0.374	3.12	1
	<b>SW-846 6020</b>	mg/kg	mg/kg	mg/kg		
06124	<b>Antimony</b>	7440-36-0	<b>0.324</b>	0.145	0.312	2
	The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.					
06125	<b>Arsenic</b>	7440-38-2	<b>9.62</b>	0.199	0.623	2
06126	<b>Barium</b>	7440-39-3	<b>78.5</b>	0.283	0.623	2
06127	<b>Beryllium</b>	7440-41-7	<b>0.832</b>	0.0163	0.156	2
06128	<b>Cadmium</b>	7440-43-9	<b>0.624</b>	0.0536	0.156	2
06131	<b>Chromium</b>	7440-47-3	<b>41.0</b>	0.271	0.623	2
06132	<b>Cobalt</b>	7440-48-4	<b>12.1</b>	0.0486	0.156	2
06133	<b>Copper</b>	7440-50-8	<b>32.2</b>	0.167	0.623	2
06135	<b>Lead</b>	7439-92-1	<b>45.4</b>	0.0346	0.312	2
06137	<b>Manganese</b>	7439-96-5	<b>713</b>	0.282	0.623	2
06139	<b>Nickel</b>	7440-02-0	<b>24.5</b>	0.310	0.623	2

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>Metals</b>	<b>SW-846 6020</b>		mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	0.619 J	0.156	0.623	2
06142	Silver	7440-22-4	0.559	0.0455	0.156	2
06145	Thallium	7440-28-0	0.144 J	0.0389	0.156	2
06148	Vanadium	7440-62-2	38.3	0.0664	0.156	2
	<b>SW-846 7471A</b>		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.170 J	0.0181	0.181	1
<b>Wet Chemistry</b>	<b>SW-846 9060A modified</b>		mg/kg	mg/kg	mg/kg	
02079	Total Organic Carbon (TOC)	n.a.	29,500	1,480	4,440	1
<b>Wet Chemistry</b>	<b>ASTM D422</b>		% Passing	% Passing	% Passing	
07103	75 mm	n.a.	100	0.50	0.50	1
07103	37.5 mm	n.a.	100	0.50	0.50	1
07103	19 mm	n.a.	100	0.50	0.50	1
07103	4.75 mm	n.a.	99.5	0.50	0.50	1
07103	3.35 mm	n.a.	99.3	0.50	0.50	1
07103	2.36 mm	n.a.	98.2	0.50	0.50	1
07103	1.18 mm	n.a.	97.5	0.50	0.50	1
07103	0.6 mm	n.a.	96.4	0.50	0.50	1
07103	0.3 mm	n.a.	94.0	0.50	0.50	1
07103	0.15 mm	n.a.	88.7	0.50	0.50	1
07103	0.075 mm	n.a.	82.6	0.50	0.50	1
07103	0.064 mm	n.a.	79.0	0.50	0.50	1
07103	0.05 mm	n.a.	71.0	0.50	0.50	1
07103	0.02 mm	n.a.	45.5	0.50	0.50	1
07103	0.005 mm	n.a.	20.5	0.50	0.50	1
07103	0.002 mm	n.a.	11.0	0.50	0.50	1
07103	0.001 mm	n.a.	5.0	0.50	0.50	1
<b>Wet Chemistry</b>	<b>SM 2540 G-1997</b>		%	%	%	
	<b>%Moisture Calc</b>					
00111	Moisture	n.a.	46.5	0.50	0.50	1

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0-0.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300726  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:40

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	X173182AA	11/14/2017 12:57	Linda C Pape	1.2
13101	Freons	SW-846 8260FRN Modified	1	J173171AA	11/13/2017 18:24	Kevin A Sposito	1.13
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:32	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:33	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:34	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 19:34	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:31	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/14/2017 01:57	Anthony P Bauer	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
01643	Aluminum	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
01650	Calcium	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
01654	Iron	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
01657	Magnesium	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
01662	Potassium	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
01667	Sodium	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
06972	Zinc	SW-846 6010B	1	173100570805	11/12/2017 22:21	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06125	Arsenic	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06126	Barium	SW-846 6020	1	173100570805D	11/13/2017 19:23	Bradley M Berlot	2
06127	Beryllium	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06128	Cadmium	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06131	Chromium	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06132	Cobalt	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06133	Copper	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06135	Lead	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06137	Manganese	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06139	Nickel	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06141	Selenium	SW-846 6020	1	173100570805B	11/13/2017 19:23	Bradley M Berlot	2
06142	Silver	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06145	Thallium	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
06148	Vanadium	SW-846 6020	1	173100570805A	11/13/2017 19:23	Bradley M Berlot	2
00159	Mercury	SW-846 7471A	1	173100571106	11/09/2017 07:59	Damary Valentin	1
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	173100570805	11/09/2017 05:21	James L Mertz	1
05711	Hg-SW, 7471A - U3	SW-846 7471A	1	173100571106	11/08/2017 19:45	Barbara A Kane	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17317667633B	11/15/2017 05:31	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	17335710302A	12/01/2017 21:20	Joshua P Trost	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

! \_\_\_\_\_ !  
! B21-1 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300726 SDG No.: \_\_\_\_\_  
Sample wt/vol: 4.15 (g/mL) g Lab File ID: HP09193.i/17nov14a.b/xn14s35.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: not dec. 46.5 Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 1.0  
Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
2.				
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page 1 of 1

FORM I VOA-TIC

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

! \_\_\_\_\_ !  
!B21-1 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300726  
Sample wt/vol: 30.13(g/mL) g Lab File ID: ok0613.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: 46.5 Decanted: (Y/N) Date Extracted: 11/11/17  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/14/17  
Injection Volume: 1 (uL) Dilution Factor: 1  
GPC Cleanup: N pH: Extraction: Mic

## CONCENTRATION UNITS:

Number TICs found: 21

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	!Unknown Aldol Condensate	! 2.951	! 1400	! JB
2.72773-04-7	!1H-Benzotriazole-1-carboxaldehyde	8.133	630	J
3.13798-23-7	!Hexathiane	8.428	290	J
4.136-85-6	!1H-Benzotriazole, 5-methyl-	8.463	800	J
5.	!Unknown	8.545	700	J
6.	!Unknown	8.669	270	J
7.	!Unknown	9.457	1200	J
8.	!Unknown	9.775	950	J
9.	!Unknown	9.827	260	J
10.15972-60-8	!Alachlor	10.063	330	J
11.57-10-3	!n-Hexadecanoic acid	10.310	270	J
12.	!Unknown	10.610	320	J
13.	!Unknown	10.692	350	J
14.80-05-7	!Phenol, 4,4'-(1-methylethylidene)-	11.157	2700	J
15.2425-77-6	!1-Decanol, 2-hexyl-	12.845	570	J
16.	!Unknown	13.757	260	J
17.	!Unknown	13.827	390	J
18.	!Unknown	14.498	500	J
19.	!Unknown	14.733	270	J
20.	!Unknown	14.751	960	J
21.	!Unknown	14.851	570	J
22.				
23.SVOCTIC	!Total SVOC TICs		14000	JB
24.				
25.				
26.				
27.				
28.				
29.				
30.				

page 1 of 1

FORM I SV-1

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	<b>190</b>	15	44	1.12
10237	Benzene	71-43-2	<b>2 J</b>	1	11	1.12
10237	Bromodichloromethane	75-27-4	2 U	2	11	1.12
10237	<b>2-Butanone</b>	78-93-3	<b>20 J</b>	9	22	1.12
10237	n-Butylbenzene	104-51-8	2 U	2	11	1.12
10237	sec-Butylbenzene	135-98-8	2 U	2	11	1.12
10237	tert-Butylbenzene	98-06-6	2 U	2	11	1.12
10237	<b>Carbon Disulfide</b>	75-15-0	<b>5 J</b>	2	11	1.12
10237	Carbon Tetrachloride	56-23-5	2 U	2	11	1.12
10237	<b>Chlorobenzene</b>	108-90-7	<b>210</b>	2	11	1.12
10237	Chloroethane	75-00-3	4 U	4	11	1.12
10237	Chloroform	67-66-3	2 U	2	11	1.12
10237	Chloromethane	74-87-3	4 U	4	11	1.12
10237	<b>2-Chlorotoluene</b>	95-49-8	<b>8 J</b>	2	11	1.12
10237	4-Chlorotoluene	106-43-4	2 U	2	11	1.12
10237	Chlorotrifluoroethene	79-38-9	4 U	4	11	1.12
10237	Dibromochloromethane	124-48-1	2 U	2	11	1.12
10237	1,2-Dibromoethane	106-93-4	2 U	2	11	1.12
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>12</b>	2	11	1.12
10237	<b>1,3-Dichlorobenzene</b>	541-73-1	<b>4 J</b>	2	11	1.12
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>19</b>	2	11	1.12
10237	Dichlorodifluoromethane	75-71-8	4 U	4	11	1.12
10237	1,1-Dichloroethane	75-34-3	2 U	2	11	1.12
10237	1,2-Dichloroethane	107-06-2	2 U	2	11	1.12
10237	1,1-Dichloroethene	75-35-4	2 U	2	11	1.12
10237	cis-1,2-Dichloroethene	156-59-2	2 U	2	11	1.12
10237	trans-1,2-Dichloroethene	156-60-5	2 U	2	11	1.12
10237	1,2-Dichloroethene (Total)	540-59-0	2 U	2	11	1.12
10237	Dichlorofluoromethane	75-43-4	4 U	4	11	1.12
10237	1,2-Dichloropropane	78-87-5	2 U	2	11	1.12
10237	1,1-Dichloropropene	563-58-6	2 U	2	11	1.12
10237	cis-1,3-Dichloropropene	10061-01-5	2 U	2	11	1.12
10237	Ethylbenzene	100-41-4	2 U	2	11	1.12
10237	Freon 113	76-13-1	4 U	4	22	1.12
10237	Freon 133a	75-88-7	4 U	4	11	1.12
10237	n-Hexane	110-54-3	2 U	2	11	1.12
10237	2-Hexanone	591-78-6	7 U	7	22	1.12
10237	Isobutyl Alcohol	78-83-1	220 U	220	550	1.12
10237	Isopropylbenzene	98-82-8	2 U	2	11	1.12
10237	p-Isopropyltoluene	99-87-6	2 U	2	11	1.12
10237	Methacrylonitrile	126-98-7	11 U	11	110	1.12
10237	Methyl Methacrylate	80-62-6	2 U	2	11	1.12

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Methyl Tertiary Butyl Ether	1634-04-4	1 U	1	11	1.12
10237	4-Methyl-2-pentanone	108-10-1	7 U	7	22	1.12
10237	Methylene Chloride	75-09-2	4 U	4	11	1.12
10237	Propionitrile	107-12-0	66 U	66	220	1.12
10237	n-Propylbenzene	103-65-1	2 U	2	11	1.12
10237	Styrene	100-42-5	2 U	2	11	1.12
10237	1,1,1,2-Tetrachloroethane	630-20-6	2 U	2	11	1.12
10237	1,1,2,2-Tetrachloroethane	79-34-5	2 U	2	11	1.12
10237	Tetrachloroethene	127-18-4	2 U	2	11	1.12
10237	Tetrahydrofuran	109-99-9	9 U	9	18	1.12
10237	<b>Toluene</b>	108-88-3	<b>3 J</b>	2	11	1.12
10237	1,1,1-Trichloroethane	71-55-6	2 U	2	11	1.12
10237	1,1,2-Trichloroethane	79-00-5	2 U	2	11	1.12
10237	Trichloroethene	79-01-6	2 U	2	11	1.12
10237	Trichlorofluoromethane	75-69-4	4 U	4	11	1.12
10237	<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>6 J</b>	2	11	1.12
10237	<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>3 J</b>	2	11	1.12
10237	Vinyl Chloride	75-01-4	2 U	2	11	1.12
10237	<b>m+p-Xylene</b>	179601-23-1	<b>4 J</b>	2	11	1.12
10237	<b>o-Xylene</b>	95-47-6	<b>6 J</b>	2	11	1.12
10237	<b>Xylene (Total)</b>	1330-20-7	<b>10 J</b>	2	11	1.12

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:

The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	2 U	2	11	1.09
13101	Chlorodifluoromethane	75-45-6	4 U	4	11	1.09
13101	Chlorofluoromethane	593-70-4	2 U	2	11	1.09
13101	Chloropentafluoroethane	76-15-3	32 UZ	32	110	1.09
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	2 U	2	11	1.09
13101	1,2-Dichloro-1-fluoroethane	430-57-9	2 U	2	11	1.09
13101	Dichlorotetrafluoroethane	76-14-2	4 U	4	11	1.09
13101	1,2-Dichlorotrifluoroethane	354-23-4	2 U	2	11	1.09
13101	Dichlorotrifluoroethane	306-83-2	2 U	2	11	1.09
13101	Fluoromethane	593-53-3	6 UZ	6	21	1.09
13101	Freon 113a	354-58-5	11 U	11	43	1.09
13101	1,1,2-Trifluoroethane	430-66-0	4 U	4	11	1.09

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	Vinyl fluoride	75-02-5	13 U	13	43	1.09
Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.						
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	<b>Acenaphthene</b>	83-32-9	<b>28 J</b>	7	33	1
10723	<b>Acenaphthylene</b>	208-96-8	<b>12 J</b>	7	33	1
10723	Acetophenone	98-86-2	33 U	33	65	1
10723	4-Aminobiphenyl	92-67-1	330 U	330	980	1
10723	Aniline	62-53-3	330 U	330	980	1
10723	<b>Anthracene</b>	120-12-7	<b>28 J</b>	7	33	1
10723	Benzidine	92-87-5	490 U	490	980	1
10723	<b>Benzo(a)anthracene</b>	56-55-3	<b>47</b>	7	33	1
10723	<b>Benzo(a)pyrene</b>	50-32-8	<b>45</b>	7	33	1
10723	<b>Benzo(b)fluoranthene</b>	205-99-2	<b>50</b>	7	33	1
10723	<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>28 J</b>	7	33	1
10723	<b>Benzo(k)fluoranthene</b>	207-08-9	<b>20 J</b>	7	33	1
10723	1,1'-Biphenyl	92-52-4	33 U	33	65	1
10723	4-Bromophenyl-phenylether	101-55-3	33 U	33	65	1
10723	Butylbenzylphthalate	85-68-7	130 U	130	330	1
10723	Di-n-butylphthalate	84-74-2	130 U	130	330	1
10723	Carbazole	86-74-8	33 U	33	65	1
10723	4-Chloro-3-methylphenol	59-50-7	33 U	33	65	1
10723	4-Chloroaniline	106-47-8	65 U	65	130	1
10723	bis(2-Chloroethoxy)methane	111-91-1	33 U	33	65	1
10723	bis(2-Chloroethyl)ether	111-44-4	33 U	33	65	1
10723	2-Chloronaphthalene	91-58-7	13 U	13	65	1
10723	2-Chlorophenol	95-57-8	33 U	33	65	1
10723	4-Chlorophenyl-phenylether	7005-72-3	33 U	33	65	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	33 U	33	65	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	<b>Chrysene</b>	218-01-9	<b>69</b>	7	33	1
10723	<b>Dibenz(a,h)anthracene</b>	53-70-3	<b>13 J</b>	7	33	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Dibenzofuran	132-64-9	33 U	33	65	1
10723	3,3'-Dichlorobenzidine	91-94-1	200 U	200	650	1
10723	2,4-Dichlorophenol	120-83-2	33 U	33	65	1
10723	Diethylphthalate	84-66-2	130 U	130	330	1
10723	2,4-Dimethylphenol	105-67-9	33 U	33	65	1
10723	Dimethylphthalate	131-11-3	130 U	130	330	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	330 U	330	980	1
10723	2,4-Dinitrophenol	51-28-5	590 U	590	2,000	1
10723	2,4-Dinitrotoluene	121-14-2	130 U	130	330	1
10723	2,6-Dinitrotoluene	606-20-2	33 U	33	65	1
10723	1,4-Dioxane	123-91-1	200 U	200	650	1
10723	<b>Diphenyl ether</b>	101-84-8	<b>42 J</b>	33	65	1
10723	1,2-Diphenylhydrazine	122-66-7	33 U	33	65	1
10723	<b>bis(2-Ethylhexyl)phthalate</b>	117-81-7	<b>220 J</b>	130	330	1
10723	<b>Fluoranthene</b>	206-44-0	<b>69</b>	7	33	1
10723	<b>Fluorene</b>	86-73-7	<b>24 J</b>	7	33	1
10723	Hexachlorobenzene	118-74-1	7 U	7	33	1
10723	Hexachlorobutadiene	87-68-3	33 U	33	65	1
10723	Hexachlorocyclopentadiene	77-47-4	330 U	330	980	1
10723	Hexachloroethane	67-72-1	65 U	65	330	1
10723	<b>Indeno(1,2,3-cd)pyrene</b>	193-39-5	<b>27 J</b>	7	33	1
10723	Isophorone	78-59-1	33 U	33	65	1
10723	<b>2-Methylnaphthalene</b>	91-57-6	<b>54</b>	7	33	1
10723	2-Methylphenol	95-48-7	33 U	33	65	1
10723	<b>4-Methylphenol</b>	106-44-5	<b>41 J</b>	33	65	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10723	<b>Naphthalene</b>	91-20-3	<b>88</b>	7	33	1
10723	1-Naphthylamine	134-32-7	330 U	330	980	1
10723	2-Naphthylamine	91-59-8	330 U	330	980	1
10723	2-Nitroaniline	88-74-4	33 U	33	65	1
10723	3-Nitroaniline	99-09-2	130 U	130	330	1
10723	4-Nitroaniline	100-01-6	130 U	130	330	1
10723	Nitrobenzene	98-95-3	33 U	33	65	1
10723	2-Nitrophenol	88-75-5	33 U	33	65	1
10723	4-Nitrophenol	100-02-7	330 U	330	980	1
10723	N-Nitrosodimethylamine	62-75-9	130 U	130	330	1
10723	N-Nitroso-di-n-propylamine	621-64-7	33 U	33	65	1
10723	<b>N-Nitrosodiphenylamine</b>	86-30-6	<b>37 J</b>	33	65	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Di-n-octylphthalate	117-84-0	130 U	130	330	1
10723	Parathion	56-38-2	330 U	330	980	1
10723	Pentachlorobenzene	608-93-5	33 U	33	65	1
10723	Pentachlorophenol	87-86-5	65 U	65	330	1
10723	<b>Phenanthrene</b>	85-01-8	<b>61</b>	7	33	1
10723	Phenol	108-95-2	33 U	33	65	1
10723	<b>Pyrene</b>	129-00-0	<b>74</b>	7	33	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	130 U	130	330	1
10723	o-Toluidine	95-53-4	390 U	390	1,300	1
10723	1,2,4-Trichlorobenzene	120-82-1	33 U	33	65	1
10723	2,4,5-Trichlorophenol	95-95-4	33 U	33	65	1
10723	2,4,6-Trichlorophenol	88-06-2	33 U	33	65	1

The project QA/QC requirements were not met.  
Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Metals	<b>SW-846 6010B</b>	mg/kg	mg/kg	mg/kg		
01643	<b>Aluminum</b>	7429-90-5	<b>22,600</b>	17.1	38.3	1
01650	<b>Calcium</b>	7440-70-2	<b>3,720</b>	6.38	38.3	1
01654	<b>Iron</b>	7439-89-6	<b>36,800</b>	15.4	38.3	1
01657	<b>Magnesium</b>	7439-95-4	<b>5,660</b>	4.65	19.1	1
01662	<b>Potassium</b>	7440-09-7	<b>3,310</b>	32.0	95.7	1
01667	<b>Sodium</b>	7440-23-5	<b>835</b>	32.0	191	1
06972	<b>Zinc</b>	7440-66-6	<b>322</b>	0.460	3.83	1

#### **SW-846 6020**

		mg/kg	mg/kg	mg/kg		
06124	<b>Antimony</b>	7440-36-0	<b>1.53</b>	0.178	0.383	2
The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.						
06125	<b>Arsenic</b>	7440-38-2	<b>26.3</b>	0.245	0.766	2
06126	<b>Barium</b>	7440-39-3	<b>120</b>	0.348	0.766	2
06127	<b>Beryllium</b>	7440-41-7	<b>1.54</b>	0.0201	0.191	2
06128	<b>Cadmium</b>	7440-43-9	<b>1.51</b>	0.0659	0.191	2
06131	<b>Chromium</b>	7440-47-3	<b>121</b>	0.333	0.766	2
06132	<b>Cobalt</b>	7440-48-4	<b>16.6</b>	0.0597	0.191	2
06133	<b>Copper</b>	7440-50-8	<b>89.2</b>	0.205	0.766	2
06135	<b>Lead</b>	7439-92-1	<b>349</b>	0.0425	0.383	2
06137	<b>Manganese</b>	7439-96-5	<b>850</b>	0.346	0.766	2
06139	<b>Nickel</b>	7440-02-0	<b>42.2</b>	0.381	0.766	2

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>Metals</b>	<b>SW-846 6020</b>		mg/kg	mg/kg	mg/kg	
06141	Selenium	7782-49-2	2.62	0.191	0.766	2
06142	Silver	7440-22-4	1.17	0.0559	0.191	2
06145	Thallium	7440-28-0	0.219	0.0479	0.191	2
06148	Vanadium	7440-62-2	91.5	0.0816	0.191	2
	<b>SW-846 7471A</b>		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	1.18	0.0194	0.194	1
<b>Wet Chemistry</b>	<b>SW-846 9060A modified</b>		mg/kg	mg/kg	mg/kg	
02079	Total Organic Carbon (TOC)	n.a.	38,600	1,100	3,310	1
<b>Wet Chemistry</b>	<b>ASTM D422</b>		% Passing	% Passing	% Passing	
07103	75 mm	n.a.	100	0.50	0.50	1
07103	37.5 mm	n.a.	100	0.50	0.50	1
07103	19 mm	n.a.	100	0.50	0.50	1
07103	4.75 mm	n.a.	100	0.50	0.50	1
07103	3.35 mm	n.a.	99.7	0.50	0.50	1
07103	2.36 mm	n.a.	98.3	0.50	0.50	1
07103	1.18 mm	n.a.	96.5	0.50	0.50	1
07103	0.6 mm	n.a.	93.3	0.50	0.50	1
07103	0.3 mm	n.a.	89.1	0.50	0.50	1
07103	0.15 mm	n.a.	82.3	0.50	0.50	1
07103	0.075 mm	n.a.	77.1	0.50	0.50	1
07103	0.064 mm	n.a.	75.0	0.50	0.50	1
07103	0.05 mm	n.a.	69.0	0.50	0.50	1
07103	0.02 mm	n.a.	49.5	0.50	0.50	1
07103	0.005 mm	n.a.	21.0	0.50	0.50	1
07103	0.002 mm	n.a.	11.0	0.50	0.50	1
07103	0.001 mm	n.a.	5.0	0.50	0.50	1
<b>Wet Chemistry</b>	<b>SM 2540 G-1997</b>		%	%	%	
	<b>%Moisture Calc</b>					
00111	Moisture	n.a.	49.3	0.50	0.50	1

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(0.5-1.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300727  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 10:45

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	X173182AA	11/14/2017 13:21	Linda C Pape	1.12
13101	Freons	SW-846 8260FRN Modified	1	J173171AA	11/13/2017 18:54	Kevin A Sposito	1.09
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:38	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:38	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:39	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 19:40	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:37	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/14/2017 02:20	Anthony P Bauer	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
01643	Aluminum	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
01650	Calcium	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
01654	Iron	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
01657	Magnesium	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
01662	Potassium	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
01667	Sodium	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
06972	Zinc	SW-846 6010B	1	173100570805	11/12/2017 22:25	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020	1	173100570805A	11/14/2017 13:06	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06126	Barium	SW-846 6020	1	173100570805D	11/13/2017 19:26	Bradley M Berlot	2
06127	Beryllium	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06128	Cadmium	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06131	Chromium	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06132	Cobalt	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06133	Copper	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06135	Lead	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06137	Manganese	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06139	Nickel	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06141	Selenium	SW-846 6020	1	173100570805B	11/13/2017 19:26	Bradley M Berlot	2
06142	Silver	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06145	Thallium	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
06148	Vanadium	SW-846 6020	1	173100570805A	11/13/2017 19:26	Bradley M Berlot	2
00159	Mercury	SW-846 7471A	1	173100571106	11/09/2017 08:01	Damary Valentin	1
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	173100570805	11/09/2017 05:21	James L Mertz	1
05711	Hg-SW, 7471A - U3	SW-846 7471A	1	173100571106	11/08/2017 19:45	Barbara A Kane	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17317667633B	11/15/2017 05:44	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	17335710302A	12/01/2017 21:20	Joshua P Trost	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_ ! B21-2 !  
Lab Code: LANCAS Case No.: SAS No.: SDG No.:  
Matrix: (soil/water) SOIL Lab Sample ID: 9300727  
Sample wt/vol: 4.47 (g/mL) g Lab File ID: HP09193.i/17nov14a.b/xn14s36.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: not dec. 49.3 Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 1.0  
Number TICs found: 15 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	!Unknown	9.23	140	J
2.	!Unknown	10.53	72	J
3.	!Unknown	14.16	74	J
4. 54676-39-0	Cyclohexane, 2-butyl-1,1,3-t	14.48	100	J
5.	!Unknown	14.54	120	J
6.	!Unknown	14.63	150	J
7.	!Unknown	14.73	89	J
8.	!Unknown	14.84	130	J
9.	!Unknown	14.96	97	J
10.	!Unknown	15.04	110	J
11.	!Unknown	15.09	73	J
12.	!Unknown	15.13	82	J
13.	!Unknown	15.22	100	J
14.	!Unknown	15.47	80	J
15.	!Unknown	15.66	72	J
16.				
17. VOCTIC	Total VOC TICs		1500	J
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

page 1 of 1

FORM I VOA-TIC

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

! \_\_\_\_\_ !

!B21-2 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_ !  
Lab Code: LANCAS Case No.: \_\_\_\_\_ !  
Matrix: (soil/water) SOIL SDG No.: \_\_\_\_\_  
Sample wt/vol: 30.28 (g/mL) g Lab Sample ID: 9300727  
Level: (low/med) LOW Lab File ID: ok0614.d  
% Moisture: 49.3 Decanted: (Y/N) Date Received: 11/04/17  
Concentrated Extract Volume: 1000 (uL) Date Extracted: 11/11/17  
Injection Volume: 1 (uL) Date Analyzed: 11/14/17  
GPC Cleanup: N Dilution Factor: 1  
pH: Extraction: Mic

## CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	!Unknown Aldol Condensate	! 2.952	! 500	! JB
2.108-42-9	!m-Chloroaniline	! 6.604	! 450	! J
3.13798-23-7	!Hexathiane	! 8.422	! 580	! J
4.	!Unknown	! 8.786	! 620	! J
5.	!Unknown	! 9.763	! 630	! J
6.4534-50-3	!Benzene, (1-butylnonyl) -	! 9.792	! 400	! J
7.	!Unknown	! 9.851	! 330	! J
8.4534-53-6	!Benzene, (1-methyldodecyl) -	! 10.122	! 310	! J
9.	!Unknown	! 10.169	! 750	! J
10.	!Unknown	! 10.210	! 350	! J
11.	!Unknown	! 10.269	! 290	! J
12.57-10-3	!n-Hexadecanoic acid	! 10.304	! 290	! J
13.	!Unknown	! 10.369	! 490	! J
14.	!Unknown	! 10.533	! 260	! J
15.80-05-7	!Phenol, 4,4'-(1-methylethylidene)bis[	! 11.151	! 1100	! J
16.85-60-9	!Phenol, 4,4'-butylidenebis[	! 12.763	! 370	! J
17.112-88-9	!1-Octadecene	! 12.845	! 490	! J
18.	!Unknown	! 14.651	! 410	! J
19.	!Unknown	! 14.692	! 470	! J
20.	!Unknown	! 14.727	! 340	! J
21.	!Unknown	! 14.757	! 710	! J
22.	!Unknown	! 14.810	! 660	! J
23.	!Unknown	! 14.857	! 730	! J
24.	!	!	!	!
25.SVOCTIC	!Total SVOC TICs		12000	! JB
26.	!	!	!	!
27.	!	!	!	!
28.	!	!	!	!
29.	!	!	!	!
30.	!	!	!	!

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FORM I SV-1

**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300728  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	<b>Acetone</b>	67-64-1	<b>54</b>	7	21	0.92
10237	<b>Benzene</b>	71-43-2	<b>0.8</b> J	0.5	5	0.92
10237	Bromodichloromethane	75-27-4	1 U	1	5	0.92
10237	2-Butanone	78-93-3	4 U	4	10	0.92
10237	n-Butylbenzene	104-51-8	1 U	1	5	0.92
10237	sec-Butylbenzene	135-98-8	1 U	1	5	0.92
10237	tert-Butylbenzene	98-06-6	1 U	1	5	0.92
10237	Carbon Disulfide	75-15-0	1 U	1	5	0.92
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	0.92
10237	<b>Chlorobenzene</b>	108-90-7	<b>18</b>	1	5	0.92
10237	Chloroethane	75-00-3	2 U	2	5	0.92
10237	Chloroform	67-66-3	1 U	1	5	0.92
10237	Chloromethane	74-87-3	2 U	2	5	0.92
10237	2-Chlorotoluene	95-49-8	1 U	1	5	0.92
10237	4-Chlorotoluene	106-43-4	1 U	1	5	0.92
10237	Chlorotrifluoroethene	79-38-9	2 U	2	5	0.92
10237	Dibromochloromethane	124-48-1	1 U	1	5	0.92
10237	1,2-Dibromoethane	106-93-4	1 U	1	5	0.92
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>2</b> J	1	5	0.92
10237	1,3-Dichlorobenzene	541-73-1	1 U	1	5	0.92
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>5</b> J	1	5	0.92
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	0.92
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	0.92
10237	1,2-Dichloroethane	107-06-2	1 U	1	5	0.92
10237	1,1-Dichloroethene	75-35-4	1 U	1	5	0.92
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	0.92
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	0.92
10237	1,2-Dichloroethene (Total)	540-59-0	1 U	1	5	0.92
10237	Dichlorofluoromethane	75-43-4	2 U	2	5	0.92
10237	1,2-Dichloropropane	78-87-5	1 U	1	5	0.92
10237	1,1-Dichloropropene	563-58-6	1 U	1	5	0.92
10237	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5	0.92
10237	Ethylbenzene	100-41-4	1 U	1	5	0.92
10237	Freon 113	76-13-1	2 U	2	10	0.92
10237	Freon 133a	75-88-7	2 U	2	5	0.92
10237	n-Hexane	110-54-3	1 U	1	5	0.92
10237	2-Hexanone	591-78-6	3 U	3	10	0.92
10237	Isobutyl Alcohol	78-83-1	100 U	100	260	0.92
10237	Isopropylbenzene	98-82-8	1 U	1	5	0.92
10237	p-Isopropyltoluene	99-87-6	1 U	1	5	0.92
10237	Methacrylonitrile	126-98-7	5 U	5	52	0.92
10237	Methyl Methacrylate	80-62-6	1 U	1	5	0.92

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300728  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5	0.92
10237	4-Methyl-2-pentanone	108-10-1	3 U	3	10	0.92
10237	Methylene Chloride	75-09-2	2 U	2	5	0.92
10237	Propionitrile	107-12-0	31 U	31	100	0.92
10237	n-Propylbenzene	103-65-1	1 U	1	5	0.92
10237	Styrene	100-42-5	1 U	1	5	0.92
10237	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5	0.92
10237	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5	0.92
10237	Tetrachloroethene	127-18-4	1 U	1	5	0.92
10237	Tetrahydrofuran	109-99-9	4 U	4	8	0.92
10237	<b>Toluene</b>	108-88-3	<b>1 J</b>	1	5	0.92
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	0.92
10237	1,1,2-Trichloroethane	79-00-5	1 U	1	5	0.92
10237	Trichloroethene	79-01-6	1 U	1	5	0.92
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5	0.92
10237	Vinyl Chloride	75-01-4	1 U	1	5	0.92
10237	m+p-Xylene	179601-23-1	1 U	1	5	0.92
10237	o-Xylene	95-47-6	1 U	1	5	0.92
10237	Xylene (Total)	1330-20-7	1 U	1	5	0.92

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	1 U	1	5	0.97
13101	Chlorodifluoromethane	75-45-6	2 U	2	5	0.97
13101	Chlorofluoromethane	593-70-4	1 U	1	5	0.97
13101	Chloropentafluoroethane	76-15-3	16 UZ	16	55	0.97
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	5	0.97
13101	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	5	0.97
13101	Dichlorotetrafluoroethane	76-14-2	2 U	2	5	0.97
13101	1,2-Dichlorotrifluoroethane	354-23-4	1 U	1	5	0.97
13101	Dichlorotrifluoroethane	306-83-2	1 U	1	5	0.97
13101	Fluoromethane	593-53-3	3 UZ	3	11	0.97
13101	Freon 113a	354-58-5	5 U	5	22	0.97
13101	1,1,2-Trifluoroethane	430-66-0	2 U	2	5	0.97
13101	Vinyl fluoride	75-02-5	7 U	7	22	0.97

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300728  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>00884 Volatile Library Search - 15</b>						
The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.						
<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>		<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10723	Acenaphthene	83-32-9	4 U	4	19	1
10723	Acenaphthylene	208-96-8	4 U	4	19	1
10723	Acetophenone	98-86-2	19 U	19	37	1
10723	4-Aminobiphenyl	92-67-1	190 U	190	560	1
10723	Aniline	62-53-3	190 U	190	560	1
10723	Anthracene	120-12-7	4 U	4	19	1
10723	Benzidine	92-87-5	280 U	280	560	1
10723	Benzo(a)anthracene	56-55-3	4 U	4	19	1
10723	Benzo(a)pyrene	50-32-8	4 U	4	19	1
10723	Benzo(b)fluoranthene	205-99-2	4 U	4	19	1
10723	Benzo(g,h,i)perylene	191-24-2	4 U	4	19	1
10723	Benzo(k)fluoranthene	207-08-9	4 U	4	19	1
10723	1,1'-Biphenyl	92-52-4	19 U	19	37	1
10723	4-Bromophenyl-phenylether	101-55-3	19 U	19	37	1
10723	Butylbenzylphthalate	85-68-7	75 U	75	190	1
10723	Di-n-butylphthalate	84-74-2	75 U	75	190	1
10723	Carbazole	86-74-8	19 U	19	37	1
10723	4-Chloro-3-methylphenol	59-50-7	19 U	19	37	1
10723	4-Chloroaniline	106-47-8	37 U	37	75	1
10723	bis(2-Chloroethoxy)methane	111-91-1	19 U	19	37	1
10723	bis(2-Chloroethyl)ether	111-44-4	19 U	19	37	1
10723	2-Chloronaphthalene	91-58-7	7 U	7	37	1
10723	2-Chlorophenol	95-57-8	19 U	19	37	1
10723	4-Chlorophenyl-phenylether	7005-72-3	19 U	19	37	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	19 U	19	37	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	Chrysene	218-01-9	4 U	4	19	1
10723	Dibenz(a,h)anthracene	53-70-3	4 U	4	19	1
10723	Dibenzofuran	132-64-9	19 U	19	37	1
10723	3,3'-Dichlorobenzidine	91-94-1	110 U	110	370	1
10723	2,4-Dichlorophenol	120-83-2	19 U	19	37	1
10723	Diethylphthalate	84-66-2	75 U	75	190	1
10723	2,4-Dimethylphenol	105-67-9	19 U	19	37	1
10723	Dimethylphthalate	131-11-3	75 U	75	190	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	190 U	190	560	1
10723	2,4-Dinitrophenol	51-28-5	340 U	340	1,100	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300728  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	2,4-Dinitrotoluene	121-14-2	75 U	75	190	1
10723	2,6-Dinitrotoluene	606-20-2	19 U	19	37	1
10723	1,4-Dioxane	123-91-1	110 U	110	370	1
10723	Diphenyl ether	101-84-8	19 U	19	37	1
10723	1,2-Diphenylhydrazine	122-66-7	19 U	19	37	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	75 U	75	190	1
10723	Fluoranthene	206-44-0	4 U	4	19	1
10723	Fluorene	86-73-7	4 U	4	19	1
10723	Hexachlorobenzene	118-74-1	4 U	4	19	1
10723	Hexachlorobutadiene	87-68-3	19 U	19	37	1
10723	Hexachlorocyclopentadiene	77-47-4	190 U	190	560	1
10723	Hexachloroethane	67-72-1	37 U	37	190	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	4 U	4	19	1
10723	Isophorone	78-59-1	19 U	19	37	1
10723	2-Methylnaphthalene	91-57-6	4 U	4	19	1
10723	2-Methylphenol	95-48-7	19 U	19	37	1
10723	4-Methylphenol	106-44-5	19 U	19	37	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10723	Naphthalene	91-20-3	4 U	4	19	1
10723	1-Naphthylamine	134-32-7	190 U	190	560	1
10723	2-Naphthylamine	91-59-8	190 U	190	560	1
10723	2-Nitroaniline	88-74-4	19 U	19	37	1
10723	3-Nitroaniline	99-09-2	75 U	75	190	1
10723	4-Nitroaniline	100-01-6	75 U	75	190	1
10723	Nitrobenzene	98-95-3	19 U	19	37	1
10723	2-Nitrophenol	88-75-5	19 U	19	37	1
10723	4-Nitrophenol	100-02-7	190 U	190	560	1
10723	N-Nitrosodimethylamine	62-75-9	75 U	75	190	1
10723	N-Nitroso-di-n-propylamine	621-64-7	19 U	19	37	1
10723	N-Nitrosodiphenylamine	86-30-6	19 U	19	37	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10723	Di-n-octylphthalate	117-84-0	75 U	75	190	1
10723	Parathion	56-38-2	190 U	190	560	1
10723	Pentachlorobenzene	608-93-5	19 U	19	37	1
10723	Pentachlorophenol	87-86-5	37 U	37	190	1
10723	Phenanthrene	85-01-8	4 U	4	19	1
10723	Phenol	108-95-2	19 U	19	37	1
10723	Pyrene	129-00-0	4 U	4	19	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	75 U	75	190	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300728  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	o-Toluidine	95-53-4	220 U	220	750	1
10723	1,2,4-Trichlorobenzene	120-82-1	19 U	19	37	1
10723	2,4,5-Trichlorophenol	95-95-4	19 U	19	37	1
10723	2,4,6-Trichlorophenol	88-06-2	19 U	19	37	1

The project QA/QC requirements were not met.  
Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Wet Chemistry	SW-846 9060A modified	mg/kg	mg/kg	mg/kg	
02079 Total Organic Carbon (TOC)	n.a.	343 J	117	350	1

Due to the nature of this sample matrix, the sample cup was filled to capacity with less than 1000 mg of sample being used. The lowered sample weight has resulted in a raised reporting limit.

Wet Chemistry	SM 2540 G-1997	%	%	%	
00111 Moisture	n.a.	11.7	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	X173182AA	11/14/2017 13:44	Linda C Pape	0.92
13101	Freons	SW-846 8260FRN	1	J173171AA	11/13/2017 19:24	Kevin A Sposito	0.97
	Modified						
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:43	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:44	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:44	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 19:45	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:42	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 15:33	Linda M Hartenstein	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1

\*=This limit was used in the evaluation of the final result

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**Sample Description:** D15-BOR-21-(4.5-5.0) Soil  
DE RIVER NAPL DELINEATION PHASE III**CRG-The Chemours Co. FC, LLC**  
**ELLE Sample #:** SW 9300728  
**ELLE Group #:** 1871371  
**Matrix:** Soil**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE IIISubmittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:15**Laboratory Sample Analysis Record**

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17317667633B	11/15/2017 05:57	Drew M Gerhart	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS! \_\_\_\_\_ !  
! B21-3 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300728  
Sample wt/vol: 5.46 (g/mL) g Lab File ID: HP09193.i/17nov14a.b/xn14s37.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: not dec. 11.7 Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 1.0  
Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
2.				
3.				
4.				
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page 1 of 1

FORM I VOA-TIC

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS
! \_\_\_\_\_ !  
!B21-3 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300728  
Sample wt/vol: 30.37(g/mL) g Lab File ID: ok0576.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: 11.7 Decanted: (Y/N) Date Extracted: 11/11/17  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/13/17  
Injection Volume: 1 (uL) Dilution Factor: 1  
GPC Cleanup: N pH: Extraction: Mic

## CONCENTRATION UNITS:

Number TICs found: 2

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.625-86-5	Furan, 2,5-dimethyl-	1.228	200	JB
2.	Unknown Aldol Condensate	2.998	390	JB
3.				
4.SVOCTIC	Total SVOC TICs		600	JB
5.				
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page 1 of 1

FORM I SV-1

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300729  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40

Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	400 U	400	1,200	51.44
10237	<b>Benzene</b>	71-43-2	<b>200 J</b>	29	290	51.44
10237	Bromodichloromethane	75-27-4	58 U	58	290	51.44
10237	2-Butanone	78-93-3	230 U	230	580	51.44
10237	n-Butylbenzene	104-51-8	58 U	58	290	51.44
10237	sec-Butylbenzene	135-98-8	58 U	58	290	51.44
10237	tert-Butylbenzene	98-06-6	58 U	58	290	51.44
10237	Carbon Disulfide	75-15-0	58 U	58	290	51.44
10237	Carbon Tetrachloride	56-23-5	58 U	58	290	51.44
10237	<b>Chlorobenzene</b>	108-90-7	<b>1,600</b>	58	290	51.44
10237	Chloroethane	75-00-3	120 U	120	290	51.44
10237	Chloroform	67-66-3	58 U	58	290	51.44
10237	Chloromethane	74-87-3	120 U	120	290	51.44
10237	2-Chlorotoluene	95-49-8	58 U	58	290	51.44
10237	4-Chlorotoluene	106-43-4	58 U	58	290	51.44
10237	Chlorotrifluoroethene	79-38-9	120 U	120	290	51.44
10237	Dibromochloromethane	124-48-1	58 U	58	290	51.44
10237	1,2-Dibromoethane	106-93-4	58 U	58	290	51.44
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>140 J</b>	58	290	51.44
10237	1,3-Dichlorobenzene	541-73-1	58 U	58	290	51.44
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>300</b>	58	290	51.44
10237	Dichlorodifluoromethane	75-71-8	120 U	120	290	51.44
10237	1,1-Dichloroethane	75-34-3	58 U	58	290	51.44
10237	1,2-Dichloroethane	107-06-2	58 U	58	290	51.44
10237	1,1-Dichloroethene	75-35-4	58 U	58	290	51.44
10237	cis-1,2-Dichloroethene	156-59-2	58 U	58	290	51.44
10237	trans-1,2-Dichloroethene	156-60-5	58 U	58	290	51.44
10237	1,2-Dichloroethene (Total)	540-59-0	58 U	58	290	51.44
10237	Dichlorofluoromethane	75-43-4	120 U	120	290	51.44
10237	1,2-Dichloropropane	78-87-5	58 U	58	290	51.44
10237	1,1-Dichloropropene	563-58-6	58 U	58	290	51.44
10237	cis-1,3-Dichloropropene	10061-01-5	58 U	58	290	51.44
10237	Ethylbenzene	100-41-4	58 U	58	290	51.44
10237	Freon 113	76-13-1	120 U	120	580	51.44
10237	Freon 133a	75-88-7	120 U	120	290	51.44
10237	n-Hexane	110-54-3	58 U	58	290	51.44
10237	2-Hexanone	591-78-6	170 U	170	580	51.44
10237	Isobutyl Alcohol	78-83-1	5,800 U	5,800	14,000	51.44
10237	Isopropylbenzene	98-82-8	58 U	58	290	51.44
10237	p-Isopropyltoluene	99-87-6	58 U	58	290	51.44
10237	Methacrylonitrile	126-98-7	290 U	290	2,900	51.44
10237	Methyl Methacrylate	80-62-6	58 U	58	290	51.44

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300729  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10237	Methyl Tertiary Butyl Ether	1634-04-4	29 U	29	290	51.44
10237	4-Methyl-2-pentanone	108-10-1	170 U	170	580	51.44
10237	Methylene Chloride	75-09-2	120 U	120	290	51.44
10237	Propionitrile	107-12-0	1,700 U	1,700	5,800	51.44
10237	n-Propylbenzene	103-65-1	58 U	58	290	51.44
10237	Styrene	100-42-5	58 U	58	290	51.44
10237	1,1,1,2-Tetrachloroethane	630-20-6	58 U	58	290	51.44
10237	1,1,2,2-Tetrachloroethane	79-34-5	58 U	58	290	51.44
10237	Tetrachloroethene	127-18-4	58 U	58	290	51.44
10237	Tetrahydrofuran	109-99-9	230 U	230	460	51.44
10237	Toluene	108-88-3	58 U	58	290	51.44
10237	1,1,1-Trichloroethane	71-55-6	58 U	58	290	51.44
10237	1,1,2-Trichloroethane	79-00-5	58 U	58	290	51.44
10237	Trichloroethene	79-01-6	58 U	58	290	51.44
10237	Trichlorofluoromethane	75-69-4	120 U	120	290	51.44
10237	1,2,4-Trimethylbenzene	95-63-6	58 U	58	290	51.44
10237	1,3,5-Trimethylbenzene	108-67-8	58 U	58	290	51.44
10237	Vinyl Chloride	75-01-4	58 U	58	290	51.44
10237	m+p-Xylene	179601-23-1	58 U	58	290	51.44
10237	o-Xylene	95-47-6	58 U	58	290	51.44
10237	Xylene (Total)	1330-20-7	58 U	58	290	51.44

The project QA/QC requirements were not met.

The percent drift for the following is >20% in the continuing calibration verification standard associated with this sample: chloroethane.

The NJ DKQP required reporting limit could not be attained for 1,2-dibromoethane.

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	1 U	1	6	0.99
13101	Chlorodifluoromethane	75-45-6	2 U	2	6	0.99
13101	Chlorofluoromethane	593-70-4	1 U	1	6	0.99
13101	Chloropentafluoroethane	76-15-3	17 UZ	17	55	0.99
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	6	0.99
13101	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	6	0.99
13101	Dichlorotetrafluoroethane	76-14-2	2 U	2	6	0.99

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300729  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	1,2-Dichlorotrifluoroethane	354-23-4	1 U	1	6	0.99
13101	Dichlorotrifluoroethane	306-83-2	1 U	1	6	0.99
13101	Fluoromethane	593-53-3	3 UZ	3	11	0.99
13101	Freon 113a	354-58-5	6 U	6	22	0.99
13101	1,1,2-Trifluoroethane	430-66-0	2 U	2	6	0.99
13101	Vinyl fluoride	75-02-5	7 UZ	7	22	0.99

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

#### 00884 Volatile Library Search - 15

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

GC/MS Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
10723	Acenaphthene	83-32-9	4 U	4	19
10723	Acenaphthylene	208-96-8	4 U	4	19
10723	Acetophenone	98-86-2	19 U	19	37
10723	4-Aminobiphenyl	92-67-1	190 U	190	560
10723	Aniline	62-53-3	190 U	190	560
10723	Anthracene	120-12-7	4 U	4	19
10723	Benzidine	92-87-5	280 U	280	560
10723	Benzo(a)anthracene	56-55-3	4 U	4	19
10723	Benzo(a)pyrene	50-32-8	4 U	4	19
10723	Benzo(b)fluoranthene	205-99-2	4 U	4	19
10723	Benzo(g,h,i)perylene	191-24-2	4 U	4	19
10723	Benzo(k)fluoranthene	207-08-9	4 U	4	19
10723	1,1'-Biphenyl	92-52-4	19 U	19	37
10723	4-Bromophenyl-phenylether	101-55-3	19 U	19	37
10723	Butylbenzylphthalate	85-68-7	74 U	74	190
10723	Di-n-butylphthalate	84-74-2	74 U	74	190
10723	Carbazole	86-74-8	19 U	19	37
10723	4-Chloro-3-methylphenol	59-50-7	19 U	19	37
10723	4-Chloroaniline	106-47-8	37 U	37	74
10723	bis(2-Chloroethoxy)methane	111-91-1	19 U	19	37
10723	bis(2-Chloroethyl)ether	111-44-4	19 U	19	37
10723	2-Chloronaphthalene	91-58-7	7 U	7	37
10723	2-Chlorophenol	95-57-8	19 U	19	37
10723	4-Chlorophenyl-phenylether	7005-72-3	19 U	19	37
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	19 U	19	37

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300729  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270C		ug/kg	ug/kg	ug/kg	
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	Chrysene	218-01-9	4 U	4	19	1
10723	Dibenz(a,h)anthracene	53-70-3	4 U	4	19	1
10723	Dibenzofuran	132-64-9	19 U	19	37	1
10723	3,3'-Dichlorobenzidine	91-94-1	110 U	110	370	1
10723	2,4-Dichlorophenol	120-83-2	19 U	19	37	1
10723	Diethylphthalate	84-66-2	74 U	74	190	1
10723	2,4-Dimethylphenol	105-67-9	19 U	19	37	1
10723	Dimethylphthalate	131-11-3	74 U	74	190	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	190 U	190	560	1
10723	2,4-Dinitrophenol	51-28-5	330 U	330	1,100	1
10723	2,4-Dinitrotoluene	121-14-2	74 U	74	190	1
10723	2,6-Dinitrotoluene	606-20-2	19 U	19	37	1
10723	1,4-Dioxane	123-91-1	110 U	110	370	1
10723	Diphenyl ether	101-84-8	19 U	19	37	1
10723	1,2-Diphenylhydrazine	122-66-7	19 U	19	37	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	74 U	74	190	1
10723	Fluoranthene	206-44-0	4 U	4	19	1
10723	Fluorene	86-73-7	4 U	4	19	1
10723	Hexachlorobenzene	118-74-1	4 U	4	19	1
10723	Hexachlorobutadiene	87-68-3	19 U	19	37	1
10723	Hexachlorocyclopentadiene	77-47-4	190 U	190	560	1
10723	Hexachloroethane	67-72-1	37 U	37	190	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	4 U	4	19	1
10723	Isophorone	78-59-1	19 U	19	37	1
10723	2-Methylnaphthalene	91-57-6	4 U	4	19	1
10723	2-Methylphenol	95-48-7	19 U	19	37	1
10723	4-Methylphenol	106-44-5	19 U	19	37	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10723	Naphthalene	91-20-3	4 U	4	19	1
10723	1-Naphthylamine	134-32-7	190 U	190	560	1
10723	2-Naphthylamine	91-59-8	190 U	190	560	1
10723	2-Nitroaniline	88-74-4	19 U	19	37	1
10723	3-Nitroaniline	99-09-2	74 U	74	190	1
10723	4-Nitroaniline	100-01-6	74 U	74	190	1
10723	Nitrobenzene	98-95-3	19 U	19	37	1
10723	2-Nitrophenol	88-75-5	19 U	19	37	1
10723	4-Nitrophenol	100-02-7	190 U	190	560	1
10723	N-Nitrosodimethylamine	62-75-9	74 U	74	190	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300729  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	N-Nitroso-di-n-propylamine	621-64-7	19 U	19	37	1
10723	N-Nitrosodiphenylamine	86-30-6	19 U	19	37	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10723	Di-n-octylphthalate	117-84-0	74 U	74	190	1
10723	Parathion	56-38-2	190 U	190	560	1
10723	Pentachlorobenzene	608-93-5	19 U	19	37	1
10723	Pentachlorophenol	87-86-5	37 U	37	190	1
10723	Phenanthrene	85-01-8	4 U	4	19	1
10723	Phenol	108-95-2	19 U	19	37	1
10723	Pyrene	129-00-0	4 U	4	19	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	74 U	74	190	1
10723	o-Toluidine	95-53-4	220 U	220	740	1
10723	1,2,4-Trichlorobenzene	120-82-1	19 U	19	37	1
10723	2,4,5-Trichlorophenol	95-95-4	19 U	19	37	1
10723	2,4,6-Trichlorophenol	88-06-2	19 U	19	37	1

The project QA/QC requirements were not met.  
Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Wet Chemistry	SW-846 9060A modified	mg/kg	mg/kg	mg/kg	
02079 Total Organic Carbon (TOC)	n.a.	246 J	114	343	1

Due to the nature of this sample matrix, the sample cup was filled to capacity with less than 1000 mg of sample being used. The lowered sample weight has resulted in a raised reporting limit.

Wet Chemistry	SM 2540 G-1997	%	%	%	
00111 Moisture	n.a.	10.9	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

\*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

**Sample Description:** D15-BOR-21-(6.0-6.5) Soil  
DE RIVER NAPL DELINEATION PHASE III**CRG-The Chemours Co. FC, LLC**  
**ELLE Sample #:** SW 9300729  
**ELLE Group #:** 1871371  
**Matrix:** Soil**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE IIISubmittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05**Laboratory Sample Analysis Record**

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	R173171AA	11/13/2017 21:08	Stephen C Nolte	51.44
13101	Freons	SW-846 8260FRN Modified	1	J173181AA	11/14/2017 16:32	Kevin A Sposito	0.99
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:48	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:48	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:49	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 19:50	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:47	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 15:55	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17320667631A	11/16/2017 15:48	Drew M Gerhart	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

! \_\_\_\_\_ !  
! B21-4 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300729  
Sample wt/vol: 4.86 (g/mL) g Lab File ID: HP07566.i/17nov13a.b/rn13s40.d  
Level: (low/med) MED Date Received: 11/04/17  
% Moisture: not dec. 10.9 Date Analyzed: 11/13/17  
Column: (pack/cap) CAP Dilution Factor: 51.4  
Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
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page 1 of 1

FORM I VOA-TIC

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS
! \_\_\_\_\_ !  
! B21-4 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300729  
Sample wt/vol: 30.28 (g/mL) g Lab File ID: ok0577.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: 10.9 Decanted: (Y/N) Date Extracted: 11/11/17  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/13/17  
Injection Volume: 1 (uL) Dilution Factor: 1  
GPC Cleanup: N pH: Extraction: Mic

## CONCENTRATION UNITS:

Number TICs found: 2

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.625-86-5	Furan, 2,5-dimethyl-	1.234	220	JB
2.	Unknown Aldol Condensate	3.004	390	JB
3.				
4.SVOCTIC	Total SVOC TICs		620	JB
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page 1 of 1

FORM I SV-1

**Sample Description:** D15-BOR-21-(6.0-6.5) MS Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300730  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	8,300	390	1,100	49.31
10237	Benzene	71-43-2	1,200	28	280	49.31
10237	Bromodichloromethane	75-27-4	1,100	55	280	49.31
10237	2-Butanone	78-93-3	7,000	220	550	49.31
10237	n-Butylbenzene	104-51-8	890	55	280	49.31
10237	sec-Butylbenzene	135-98-8	930	55	280	49.31
10237	tert-Butylbenzene	98-06-6	900	55	280	49.31
10237	Carbon Disulfide	75-15-0	980	55	280	49.31
10237	Carbon Tetrachloride	56-23-5	1,100	55	280	49.31
10237	Chlorobenzene	108-90-7	1,600	55	280	49.31
10237	Chloroethane	75-00-3	960	110	280	49.31
10237	Chloroform	67-66-3	1,100	55	280	49.31
10237	Chloromethane	74-87-3	820	110	280	49.31
10237	2-Chlorotoluene	95-49-8	990	55	280	49.31
10237	4-Chlorotoluene	106-43-4	970	55	280	49.31
10237	Dibromochloromethane	124-48-1	980	55	280	49.31
10237	1,2-Dibromoethane	106-93-4	1,000	55	280	49.31
10237	1,2-Dichlorobenzene	95-50-1	1,100	55	280	49.31
10237	1,3-Dichlorobenzene	541-73-1	970	55	280	49.31
10237	1,4-Dichlorobenzene	106-46-7	1,200	55	280	49.31
10237	Dichlorodifluoromethane	75-71-8	470	110	280	49.31
10237	1,1-Dichloroethane	75-34-3	1,100	55	280	49.31
10237	1,2-Dichloroethane	107-06-2	1,200	55	280	49.31
10237	1,1-Dichloroethene	75-35-4	1,100	55	280	49.31
10237	cis-1,2-Dichloroethene	156-59-2	1,200	55	280	49.31
10237	trans-1,2-Dichloroethene	156-60-5	1,100	55	280	49.31
10237	1,2-Dichloroethene (Total)	540-59-0	2,300	55	280	49.31
10237	Dichlorofluoromethane	75-43-4	1,000	110	280	49.31
10237	1,2-Dichloropropane	78-87-5	1,100	55	280	49.31
10237	1,1-Dichloropropene	563-58-6	1,100	55	280	49.31
10237	cis-1,3-Dichloropropene	10061-01-5	1,100	55	280	49.31
10237	Ethylbenzene	100-41-4	1,000	55	280	49.31
10237	Freon 113	76-13-1	1,000	110	550	49.31
10237	n-Hexane	110-54-3	960	55	280	49.31
10237	2-Hexanone	591-78-6	4,700	170	550	49.31
10237	Isobutyl Alcohol	78-83-1	24,000	5,500	14,000	49.31
10237	Isopropylbenzene	98-82-8	980	55	280	49.31
10237	p-Isopropyltoluene	99-87-6	940	55	280	49.31
10237	Methacrylonitrile	126-98-7	8,400	280	2,800	49.31
10237	Methyl Methacrylate	80-62-6	1,000	55	280	49.31
10237	Methyl Tertiary Butyl Ether	1634-04-4	1,100	28	280	49.31
10237	4-Methyl-2-pentanone	108-10-1	5,300	170	550	49.31

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MS Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300730  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>						
10237	Methylene Chloride	75-09-2	1,100	110	280	49.31
10237	Propionitrile	107-12-0	8,800	1,700	5,500	49.31
10237	n-Propylbenzene	103-65-1	930	55	280	49.31
10237	Styrene	100-42-5	980	55	280	49.31
10237	1,1,1,2-Tetrachloroethane	630-20-6	1,000	55	280	49.31
10237	1,1,2,2-Tetrachloroethane	79-34-5	970	55	280	49.31
10237	Tetrachloroethene	127-18-4	990	55	280	49.31
10237	Tetrahydrofuran	109-99-9	4,900	220	440	49.31
10237	Toluene	108-88-3	1,000	55	280	49.31
10237	1,1,1-Trichloroethane	71-55-6	1,100	55	280	49.31
10237	1,1,2-Trichloroethane	79-00-5	1,000	55	280	49.31
10237	Trichloroethene	79-01-6	1,100	55	280	49.31
10237	Trichlorofluoromethane	75-69-4	930	110	280	49.31
10237	1,2,4-Trimethylbenzene	95-63-6	930	55	280	49.31
10237	1,3,5-Trimethylbenzene	108-67-8	940	55	280	49.31
10237	Vinyl Chloride	75-01-4	870	55	280	49.31
10237	m+p-Xylene	179601-23-1	2,100	55	280	49.31
10237	o-Xylene	95-47-6	1,000	55	280	49.31
10237	Xylene (Total)	1330-20-7	3,100	55	280	49.31

The project QA/QC requirements were not met.

The percent drift for the following is >20% in the continuing calibration verification standard associated with this sample: chloroethane.

The NJ DKQP required reporting limit could not be attained for 1,2-dibromoethane.

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg
13101	Chlorodifluoroethane	75-68-3	24	1
13101	Chlorodifluoromethane	75-45-6	24	2
13101	Chlorofluoromethane	593-70-4	21	1
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	26	1
13101	1,2-Dichloro-1-fluoroethane	430-57-9	21	1
13101	Dichlorotetrafluoroethane	76-14-2	22	2
13101	1,2-Dichlorotrifluoroethane	354-23-4	22	1
13101	Dichlorotrifluoroethane	306-83-2	21	1
13101	Freon 113a	354-58-5	21 J	6
				22

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MS Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300730  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	1,1,2-Trifluoroethane	430-66-0	24	2	6	1
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Acenaphthene	83-32-9	2,200	4	19	1
10723	Acenaphthylene	208-96-8	2,000	4	19	1
10723	Acetophenone	98-86-2	1,800	19	37	1
10723	4-Aminobiphenyl	92-67-1	3,600	190	560	1
10723	Aniline	62-53-3	1,200	190	560	1
10723	Anthracene	120-12-7	1,900	4	19	1
10723	Benzidine	92-87-5	3,900	280	560	1
10723	Benzo(a)anthracene	56-55-3	1,800	4	19	1
10723	Benzo(a)pyrene	50-32-8	1,800	4	19	1
10723	Benzo(b)fluoranthene	205-99-2	2,000	4	19	1
10723	Benzo(g,h,i)perylene	191-24-2	1,900	4	19	1
10723	Benzo(k)fluoranthene	207-08-9	1,900	4	19	1
10723	1,1'-Biphenyl	92-52-4	2,100	19	37	1
10723	4-Bromophenyl-phenylether	101-55-3	1,900	19	37	1
10723	Butylbenzylphthalate	85-68-7	2,000	75	190	1
10723	Di-n-butylphthalate	84-74-2	1,900	75	190	1
10723	Carbazole	86-74-8	1,800	19	37	1
10723	4-Chloro-3-methylphenol	59-50-7	2,000	19	37	1
10723	4-Chloroaniline	106-47-8	690	37	75	1
10723	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	37	1
10723	bis(2-Chloroethyl)ether	111-44-4	1,800	19	37	1
10723	2-Choronaphthalene	91-58-7	2,000	7	37	1
10723	2-Chlorophenol	95-57-8	2,000	19	37	1
10723	4-Chlorophenyl-phenylether	7005-72-3	1,800	19	37	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	1,700	19	37	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10723	Chrysene	218-01-9	1,700	4	19	1
10723	Dibenz(a,h)anthracene	53-70-3	1,700	4	19	1
10723	Dibenzofuran	132-64-9	2,000	19	37	1
10723	3,3'-Dichlorobenzidine	91-94-1	1,100	110	370	1
10723	2,4-Dichlorophenol	120-83-2	1,900	19	37	1
10723	Diethylphthalate	84-66-2	2,100	75	190	1
10723	2,4-Dimethylphenol	105-67-9	1,600	19	37	1
10723	Dimethylphthalate	131-11-3	1,900	75	190	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	1,700	190	560	1
10723	2,4-Dinitrophenol	51-28-5	1,700	340	1,100	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MS Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300730  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40

Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	2,4-Dinitrotoluene	121-14-2	<b>2,100</b>	75	190	1
10723	2,6-Dinitrotoluene	606-20-2	<b>1,900</b>	19	37	1
10723	1,4-Dioxane	123-91-1	<b>1,400</b>	110	370	1
10723	Diphenyl ether	101-84-8	<b>1,800</b>	19	37	1
10723	1,2-Diphenylhydrazine	122-66-7	<b>2,000</b>	19	37	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	<b>1,900</b>	75	190	1
10723	Fluoranthene	206-44-0	<b>1,700</b>	4	19	1
10723	Fluorene	86-73-7	<b>2,000</b>	4	19	1
10723	Hexachlorobenzene	118-74-1	<b>1,800</b>	4	19	1
10723	Hexachlorobutadiene	87-68-3	<b>1,700</b>	19	37	1
10723	Hexachlorocyclopentadiene	77-47-4	<b>2,800</b>	190	560	1
10723	Hexachloroethane	67-72-1	<b>1,800</b>	37	190	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	<b>1,700</b>	4	19	1
10723	Isophorone	78-59-1	<b>1,900</b>	19	37	1
10723	2-Methylnaphthalene	91-57-6	<b>1,900</b>	4	19	1
10723	2-Methylphenol	95-48-7	<b>2,000</b>	19	37	1
10723	<b>4-Methylphenol</b>	106-44-5	<b>1,800</b>	19	37	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10723	Naphthalene	91-20-3	<b>2,000</b>	4	19	1
10723	1-Naphthylamine	134-32-7	<b>1,800</b>	190	560	1
10723	2-Naphthylamine	91-59-8	<b>1,100</b>	190	560	1
10723	2-Nitroaniline	88-74-4	<b>2,200</b>	19	37	1
10723	3-Nitroaniline	99-09-2	<b>1,700</b>	75	190	1
10723	4-Nitroaniline	100-01-6	<b>1,800</b>	75	190	1
10723	Nitrobenzene	98-95-3	<b>1,900</b>	19	37	1
10723	2-Nitrophenol	88-75-5	<b>2,000</b>	19	37	1
10723	4-Nitrophenol	100-02-7	<b>1,100</b>	190	560	1
10723	N-Nitrosodimethylamine	62-75-9	<b>1,900</b>	75	190	1
10723	N-Nitroso-di-n-propylamine	621-64-7	<b>1,900</b>	19	37	1
10723	N-Nitrosodiphenylamine	86-30-6	<b>1,800</b>	19	37	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10723	Di-n-octylphthalate	117-84-0	<b>2,300</b>	75	190	1
10723	Parathion	56-38-2	<b>1,800</b>	190	560	1
10723	Pentachlorobenzene	608-93-5	<b>1,800</b>	19	37	1
10723	Pentachlorophenol	87-86-5	<b>1,400</b>	37	190	1
10723	Phenanthrene	85-01-8	<b>1,900</b>	4	19	1
10723	Phenol	108-95-2	<b>1,900</b>	19	37	1
10723	Pyrene	129-00-0	<b>1,900</b>	4	19	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	<b>1,900</b>	75	190	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MS Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300730  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	o-Toluidine	95-53-4	<b>820</b>	220	750	1
10723	1,2,4-Trichlorobenzene	120-82-1	<b>1,900</b>	19	37	1
10723	2,4,5-Trichlorophenol	95-95-4	<b>2,000</b>	19	37	1
10723	2,4,6-Trichlorophenol	88-06-2	<b>2,100</b>	19	37	1
The project QA/QC requirements were not met. Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
	<b>Wet Chemistry</b>	<b>SW-846 9060A modified</b>	mg/kg	mg/kg	mg/kg	
02079	Total Organic Carbon (TOC)	n.a.	<b>20,100</b>	598	1,790	1
	<b>Wet Chemistry</b>	<b>SM 2540 G-1997 %Moisture Calc</b>	%	%	%	
00118	Moisture	n.a.	<b>10.9</b>	0.50	0.50	1

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	R173171AA	11/13/2017 21:33	Stephen C Nolte	49.31
13101	Freons	SW-846 8260FRN Modified	1	J173181AA	11/14/2017 17:03	Kevin A Sposito	1
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:53	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:54	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:54	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 19:55	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:52	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 16:17	Linda M Hartenstein	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17320667631A	11/16/2017 16:01	Drew M Gerhart	1
00118	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MSD Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300731  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	<b>8,500</b>	370	1,100	47.62
10237	Benzene	71-43-2	<b>1,200</b>	27	270	47.62
10237	Bromodichloromethane	75-27-4	<b>1,100</b>	53	270	47.62
10237	2-Butanone	78-93-3	<b>7,200</b>	210	530	47.62
10237	n-Butylbenzene	104-51-8	<b>1,100</b>	53	270	47.62
10237	sec-Butylbenzene	135-98-8	<b>1,100</b>	53	270	47.62
10237	tert-Butylbenzene	98-06-6	<b>1,000</b>	53	270	47.62
10237	Carbon Disulfide	75-15-0	<b>1,000</b>	53	270	47.62
10237	Carbon Tetrachloride	56-23-5	<b>1,100</b>	53	270	47.62
10237	Chlorobenzene	108-90-7	<b>1,200</b>	53	270	47.62
10237	Chloroethane	75-00-3	<b>1,000</b>	110	270	47.62
10237	Chloroform	67-66-3	<b>1,100</b>	53	270	47.62
10237	Chloromethane	74-87-3	<b>800</b>	110	270	47.62
10237	2-Chlorotoluene	95-49-8	<b>1,000</b>	53	270	47.62
10237	4-Chlorotoluene	106-43-4	<b>1,000</b>	53	270	47.62
10237	Dibromochloromethane	124-48-1	<b>1,100</b>	53	270	47.62
10237	1,2-Dibromoethane	106-93-4	<b>1,100</b>	53	270	47.62
10237	1,2-Dichlorobenzene	95-50-1	<b>1,100</b>	53	270	47.62
10237	1,3-Dichlorobenzene	541-73-1	<b>1,100</b>	53	270	47.62
10237	1,4-Dichlorobenzene	106-46-7	<b>1,100</b>	53	270	47.62
10237	Dichlorodifluoromethane	75-71-8	<b>440</b>	110	270	47.62
10237	1,1-Dichloroethane	75-34-3	<b>1,200</b>	53	270	47.62
10237	1,2-Dichloroethane	107-06-2	<b>1,200</b>	53	270	47.62
10237	1,1-Dichloroethene	75-35-4	<b>1,200</b>	53	270	47.62
10237	cis-1,2-Dichloroethene	156-59-2	<b>1,200</b>	53	270	47.62
10237	trans-1,2-Dichloroethene	156-60-5	<b>1,100</b>	53	270	47.62
10237	1,2-Dichloroethene (Total)	540-59-0	<b>2,300</b>	53	270	47.62
10237	Dichlorofluoromethane	75-43-4	<b>970</b>	110	270	47.62
10237	1,2-Dichloropropane	78-87-5	<b>1,200</b>	53	270	47.62
10237	1,1-Dichloropropene	563-58-6	<b>1,100</b>	53	270	47.62
10237	cis-1,3-Dichloropropene	10061-01-5	<b>1,200</b>	53	270	47.62
10237	Ethylbenzene	100-41-4	<b>1,000</b>	53	270	47.62
10237	Freon 113	76-13-1	<b>1,100</b>	110	530	47.62
10237	n-Hexane	110-54-3	<b>960</b>	53	270	47.62
10237	2-Hexanone	591-78-6	<b>5,100</b>	160	530	47.62
10237	Isobutyl Alcohol	78-83-1	<b>24,000</b>	5,300	13,000	47.62
10237	Isopropylbenzene	98-82-8	<b>1,100</b>	53	270	47.62
10237	p-Isopropyltoluene	99-87-6	<b>1,100</b>	53	270	47.62
10237	Methacrylonitrile	126-98-7	<b>8,800</b>	270	2,700	47.62
10237	Methyl Methacrylate	80-62-6	<b>1,100</b>	53	270	47.62
10237	Methyl Tertiary Butyl Ether	1634-04-4	<b>1,100</b>	27	270	47.62
10237	4-Methyl-2-pentanone	108-10-1	<b>5,600</b>	160	530	47.62

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MSD Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300731  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>						
10237	Methylene Chloride	75-09-2	1,200	110	270	47.62
10237	Propionitrile	107-12-0	8,800	1,600	5,300	47.62
10237	n-Propylbenzene	103-65-1	990	53	270	47.62
10237	Styrene	100-42-5	1,000	53	270	47.62
10237	1,1,1,2-Tetrachloroethane	630-20-6	1,100	53	270	47.62
10237	1,1,2,2-Tetrachloroethane	79-34-5	1,000	53	270	47.62
10237	Tetrachloroethene	127-18-4	1,100	53	270	47.62
10237	Tetrahydrofuran	109-99-9	5,200	210	430	47.62
10237	Toluene	108-88-3	1,100	53	270	47.62
10237	1,1,1-Trichloroethane	71-55-6	1,100	53	270	47.62
10237	1,1,2-Trichloroethane	79-00-5	1,100	53	270	47.62
10237	Trichloroethene	79-01-6	1,100	53	270	47.62
10237	Trichlorofluoromethane	75-69-4	940	110	270	47.62
10237	1,2,4-Trimethylbenzene	95-63-6	1,000	53	270	47.62
10237	1,3,5-Trimethylbenzene	108-67-8	1,000	53	270	47.62
10237	Vinyl Chloride	75-01-4	870	53	270	47.62
10237	m+p-Xylene	179601-23-1	2,200	53	270	47.62
10237	o-Xylene	95-47-6	1,100	53	270	47.62
10237	Xylene (Total)	1330-20-7	3,200	53	270	47.62

The project QA/QC requirements were not met.

The percent drift for the following is >20% in the continuing calibration verification standard associated with this sample: chloroethane.

The NJ DKQP required reporting limit could not be attained for 1,2-dibromoethane.

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC/MS Volatiles		SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg	
13101	Chlorodifluoroethane	75-68-3	24	1	5	0.98
13101	Chlorodifluoromethane	75-45-6	25	2	5	0.98
13101	Chlorofluoromethane	593-70-4	21	1	5	0.98
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	23	1	5	0.98
13101	1,2-Dichloro-1-fluoroethane	430-57-9	21	1	5	0.98
13101	Dichlorotetrafluoroethane	76-14-2	22	2	5	0.98
13101	1,2-Dichlorotrifluoroethane	354-23-4	22	1	5	0.98
13101	Dichlorotrifluoroethane	306-83-2	21	1	5	0.98
13101	Freon 113a	354-58-5	20 J	5	22	0.98

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MSD Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300731  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	1,1,2-Trifluoroethane	430-66-0	21	2	5	0.98
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Acenaphthene	83-32-9	2,200	4	19	1
10723	Acenaphthylene	208-96-8	2,100	4	19	1
10723	Acetophenone	98-86-2	1,900	19	37	1
10723	4-Aminobiphenyl	92-67-1	3,600	190	560	1
10723	Aniline	62-53-3	1,100	190	560	1
10723	Anthracene	120-12-7	1,900	4	19	1
10723	Benzidine	92-87-5	3,600	280	560	1
10723	Benzo(a)anthracene	56-55-3	1,900	4	19	1
10723	Benzo(a)pyrene	50-32-8	1,800	4	19	1
10723	Benzo(b)fluoranthene	205-99-2	1,900	4	19	1
10723	Benzo(g,h,i)perylene	191-24-2	1,900	4	19	1
10723	Benzo(k)fluoranthene	207-08-9	1,900	4	19	1
10723	1,1'-Biphenyl	92-52-4	2,000	19	37	1
10723	4-Bromophenyl-phenylether	101-55-3	1,700	19	37	1
10723	Butylbenzylphthalate	85-68-7	2,100	74	190	1
10723	Di-n-butylphthalate	84-74-2	1,700	74	190	1
10723	Carbazole	86-74-8	1,700	19	37	1
10723	4-Chloro-3-methylphenol	59-50-7	2,000	19	37	1
10723	4-Chloroaniline	106-47-8	620	37	74	1
10723	bis(2-Chloroethoxy)methane	111-91-1	1,700	19	37	1
10723	bis(2-Chloroethyl)ether	111-44-4	1,800	19	37	1
10723	2-Choronaphthalene	91-58-7	1,900	7	37	1
10723	2-Chlorophenol	95-57-8	2,100	19	37	1
10723	4-Chlorophenyl-phenylether	7005-72-3	2,000	19	37	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	1,700	19	37	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10723	Chrysene	218-01-9	1,900	4	19	1
10723	Dibenz(a,h)anthracene	53-70-3	1,700	4	19	1
10723	Dibenzofuran	132-64-9	2,100	19	37	1
10723	3,3'-Dichlorobenzidine	91-94-1	1,300	110	370	1
10723	2,4-Dichlorophenol	120-83-2	1,800	19	37	1
10723	Diethylphthalate	84-66-2	2,200	74	190	1
10723	2,4-Dimethylphenol	105-67-9	1,500	19	37	1
10723	Dimethylphthalate	131-11-3	2,000	74	190	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	1,800	190	560	1
10723	2,4-Dinitrophenol	51-28-5	2,100	340	1,100	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MSD Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300731  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	2,4-Dinitrotoluene	121-14-2	<b>2,100</b>	74	190	1
10723	2,6-Dinitrotoluene	606-20-2	<b>2,100</b>	19	37	1
10723	1,4-Dioxane	123-91-1	<b>1,400</b>	110	370	1
10723	Diphenyl ether	101-84-8	<b>1,900</b>	19	37	1
10723	1,2-Diphenylhydrazine	122-66-7	<b>2,000</b>	19	37	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	<b>2,000</b>	74	190	1
10723	Fluoranthene	206-44-0	<b>1,700</b>	4	19	1
10723	Fluorene	86-73-7	<b>2,000</b>	4	19	1
10723	Hexachlorobenzene	118-74-1	<b>1,700</b>	4	19	1
10723	Hexachlorobutadiene	87-68-3	<b>1,700</b>	19	37	1
10723	Hexachlorocyclopentadiene	77-47-4	<b>3,000</b>	190	560	1
10723	Hexachloroethane	67-72-1	<b>1,800</b>	37	190	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	<b>1,800</b>	4	19	1
10723	Isophorone	78-59-1	<b>1,800</b>	19	37	1
10723	2-Methylnaphthalene	91-57-6	<b>1,900</b>	4	19	1
10723	2-Methylphenol	95-48-7	<b>2,100</b>	19	37	1
10723	<b>4-Methylphenol</b>	106-44-5	<b>1,800</b>	19	37	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10723	Naphthalene	91-20-3	<b>1,900</b>	4	19	1
10723	1-Naphthylamine	134-32-7	<b>1,700</b>	190	560	1
10723	2-Naphthylamine	91-59-8	<b>1,100</b>	190	560	1
10723	2-Nitroaniline	88-74-4	<b>2,300</b>	19	37	1
10723	3-Nitroaniline	99-09-2	<b>1,600</b>	74	190	1
10723	4-Nitroaniline	100-01-6	<b>2,000</b>	74	190	1
10723	Nitrobenzene	98-95-3	<b>1,900</b>	19	37	1
10723	2-Nitrophenol	88-75-5	<b>2,000</b>	19	37	1
10723	4-Nitrophenol	100-02-7	<b>1,100</b>	190	560	1
10723	N-Nitrosodimethylamine	62-75-9	<b>1,900</b>	74	190	1
10723	N-Nitroso-di-n-propylamine	621-64-7	<b>1,900</b>	19	37	1
10723	N-Nitrosodiphenylamine	86-30-6	<b>1,800</b>	19	37	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10723	Di-n-octylphthalate	117-84-0	<b>2,300</b>	74	190	1
10723	Parathion	56-38-2	<b>1,600</b>	190	560	1
10723	Pentachlorobenzene	608-93-5	<b>1,900</b>	19	37	1
10723	Pentachlorophenol	87-86-5	<b>1,200</b>	37	190	1
10723	Phenanthrene	85-01-8	<b>1,900</b>	4	19	1
10723	Phenol	108-95-2	<b>2,000</b>	19	37	1
10723	Pyrene	129-00-0	<b>1,900</b>	4	19	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	<b>2,000</b>	74	190	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) MSD Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300731  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	<b>SW-846 8270C</b>		ug/kg	ug/kg	ug/kg	
10723	o-Toluidine	95-53-4	780	220	740	1
10723	1,2,4-Trichlorobenzene	120-82-1	1,800	19	37	1
10723	2,4,5-Trichlorophenol	95-95-4	2,100	19	37	1
10723	2,4,6-Trichlorophenol	88-06-2	2,100	19	37	1
The project QA/QC requirements were not met. Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
Wet Chemistry	<b>SW-846 9060A modified</b>		mg/kg	mg/kg	mg/kg	
02079	Total Organic Carbon (TOC)	n.a.	21,900	625	1,880	1
Wet Chemistry	<b>SM 2540 G-1997 %Moisture Calc</b>		%	%	%	
00118	Moisture	n.a.	10.9	0.50	0.50	1

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	R173171AA	11/13/2017 21:57	Stephen C Nolte	47.62
13101	Freons	SW-846 8260FRN Modified	1	J173181AA	11/14/2017 17:32	Kevin A Sposito	0.98
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 19:58	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 19:58	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 19:59	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 20:00	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 19:57	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 16:39	Linda M Hartenstein	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17320667631A	11/16/2017 16:14	Drew M Gerhart	1
00118	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(6.0-6.5) Dupl Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300732  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry 02079	SW-846 9060A modified Total Organic Carbon (TOC)	n.a.	mg/kg 290 J	mg/kg 116	mg/kg 347	1
			Due to the nature of this sample matrix, the sample cup was filled to capacity with less than 1000 mg of sample being used. The lowered sample weight has resulted in a raised reporting limit.			
Wet Chemistry 00118	SM 2540 G-1997 Moisture	n.a.	% 10.9	0.50	0.50	1
00121	Moisture Duplicate	n.a.	% 10.7	0.50	0.50	1
			The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.			

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17320667631A	11/16/2017 16:27	Drew M Gerhart	1
00118	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1
00121	Moisture Duplicate	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300733  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	<b>Acetone</b>	67-64-1	<b>32</b>	7	20	0.92
10237	<b>Benzene</b>	71-43-2	<b>26</b>	0.5	5	0.92
10237	Bromodichloromethane	75-27-4	1 U	1	5	0.92
10237	2-Butanone	78-93-3	4 U	4	10	0.92
10237	n-Butylbenzene	104-51-8	1 U	1	5	0.92
10237	sec-Butylbenzene	135-98-8	1 U	1	5	0.92
10237	tert-Butylbenzene	98-06-6	1 U	1	5	0.92
10237	Carbon Disulfide	75-15-0	1 U	1	5	0.92
10237	Carbon Tetrachloride	56-23-5	1 U	1	5	0.92
10237	<b>Chlorobenzene</b>	108-90-7	<b>190 J</b>	52	260	47.89
10237	Chloroethane	75-00-3	2 U	2	5	0.92
10237	<b>Chloroform</b>	67-66-3	<b>2 J</b>	1	5	0.92
10237	Chloromethane	74-87-3	2 U	2	5	0.92
10237	2-Chlorotoluene	95-49-8	1 U	1	5	0.92
10237	4-Chlorotoluene	106-43-4	1 U	1	5	0.92
10237	Chlorotrifluoroethene	79-38-9	2 U	2	5	0.92
10237	Dibromochloromethane	124-48-1	1 U	1	5	0.92
10237	1,2-Dibromoethane	106-93-4	1 U	1	5	0.92
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>49</b>	1	5	0.92
10237	<b>1,3-Dichlorobenzene</b>	541-73-1	<b>4 J</b>	1	5	0.92
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>110</b>	1	5	0.92
10237	Dichlorodifluoromethane	75-71-8	2 U	2	5	0.92
10237	1,1-Dichloroethane	75-34-3	1 U	1	5	0.92
10237	1,2-Dichloroethane	107-06-2	1 U	1	5	0.92
10237	1,1-Dichloroethene	75-35-4	1 U	1	5	0.92
10237	cis-1,2-Dichloroethene	156-59-2	1 U	1	5	0.92
10237	trans-1,2-Dichloroethene	156-60-5	1 U	1	5	0.92
10237	1,2-Dichloroethene (Total)	540-59-0	1 U	1	5	0.92
10237	Dichlorofluoromethane	75-43-4	2 U	2	5	0.92
10237	1,2-Dichloropropane	78-87-5	1 U	1	5	0.92
10237	1,1-Dichloropropene	563-58-6	1 U	1	5	0.92
10237	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5	0.92
10237	<b>Ethylbenzene</b>	100-41-4	<b>3 J</b>	1	5	0.92
10237	<b>Freon 113</b>	76-13-1	<b>5 J</b>	2	10	0.92
10237	Freon 133a	75-88-7	2 U	2	5	0.92
10237	n-Hexane	110-54-3	1 U	1	5	0.92
10237	2-Hexanone	591-78-6	3 U	3	10	0.92
10237	Isobutyl Alcohol	78-83-1	100 U	100	250	0.92
10237	Isopropylbenzene	98-82-8	1 U	1	5	0.92
10237	p-Isopropyltoluene	99-87-6	1 U	1	5	0.92
10237	Methacrylonitrile	126-98-7	5 U	5	50	0.92
10237	Methyl Methacrylate	80-62-6	1 U	1	5	0.92

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300733  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5	0.92
10237	4-Methyl-2-pentanone	108-10-1	3 U	3	10	0.92
10237	Methylene Chloride	75-09-2	2 U	2	5	0.92
10237	Propionitrile	107-12-0	30 U	30	100	0.92
10237	n-Propylbenzene	103-65-1	1 U	1	5	0.92
10237	Styrene	100-42-5	1 U	1	5	0.92
10237	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5	0.92
10237	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5	0.92
10237	Tetrachloroethene	127-18-4	1 U	1	5	0.92
10237	Tetrahydrofuran	109-99-9	4 U	4	8	0.92
10237	Toluene	108-88-3	1 U	1	5	0.92
10237	1,1,1-Trichloroethane	71-55-6	1 U	1	5	0.92
10237	1,1,2-Trichloroethane	79-00-5	1 U	1	5	0.92
10237	Trichloroethene	79-01-6	1 U	1	5	0.92
10237	Trichlorofluoromethane	75-69-4	2 U	2	5	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5	0.92
10237	Vinyl Chloride	75-01-4	1 U	1	5	0.92
10237	<b>m+p-Xylene</b>	179601-23-1	<b>3 J</b>	1	5	0.92
10237	<b>o-Xylene</b>	95-47-6	<b>2 J</b>	1	5	0.92
10237	<b>Xylene (Total)</b>	1330-20-7	<b>5</b>	1	5	0.92

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The concentration reported for Chlorobenzene is estimated since it exceeds the calibration range of the instrument when determined by the low level method, but is less than the quantitation limit when determined by the high level method. The result reported is from the high level determination.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	1 U	1	7	1.28
13101	Chlorodifluoromethane	75-45-6	3 U	3	7	1.28
13101	Chlorofluoromethane	593-70-4	1 U	1	7	1.28
13101	Chloropentafluoroethane	76-15-3	21 UZ	21	70	1.28
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	7	1.28
13101	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	7	1.28
13101	Dichlorotetrafluoroethane	76-14-2	3 U	3	7	1.28
13101	1,2-Dichlorotrifluoroethane	354-23-4	1 U	1	7	1.28
13101	Dichlorotrifluoroethane	306-83-2	1 U	1	7	1.28
13101	Fluoromethane	593-53-3	4 UZ	4	14	1.28
13101	Freon 113a	354-58-5	7 U	7	28	1.28
13101	1,1,2-Trifluoroethane	430-66-0	3 U	3	7	1.28

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300733  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg	ug/kg	
13101	Vinyl fluoride	75-02-5	8 UZ	8	28	1.28
Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.						
GC/MS Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
10723	Acenaphthene	83-32-9	4 U	4	19	1
10723	Acenaphthylene	208-96-8	4 U	4	19	1
10723	Acetophenone	98-86-2	18 U	18	36	1
10723	4-Aminobiphenyl	92-67-1	180 U	180	550	1
10723	Aniline	62-53-3	180 U	180	550	1
10723	Anthracene	120-12-7	4 U	4	19	1
10723	Benzidine	92-87-5	270 U	270	550	1
10723	Benzo(a)anthracene	56-55-3	4 U	4	19	1
10723	Benzo(a)pyrene	50-32-8	4 U	4	19	1
10723	Benzo(b)fluoranthene	205-99-2	4 U	4	19	1
10723	Benzo(g,h,i)perylene	191-24-2	4 U	4	19	1
10723	Benzo(k)fluoranthene	207-08-9	4 U	4	19	1
10723	1,1'-Biphenyl	92-52-4	18 U	18	36	1
10723	4-Bromophenyl-phenylether	101-55-3	18 U	18	36	1
10723	Butylbenzylphthalate	85-68-7	73 U	73	180	1
10723	Di-n-butylphthalate	84-74-2	73 U	73	180	1
10723	Carbazole	86-74-8	18 U	18	36	1
10723	4-Chloro-3-methylphenol	59-50-7	18 U	18	36	1
10723	4-Chloroaniline	106-47-8	36 U	36	73	1
10723	bis(2-Chloroethoxy)methane	111-91-1	18 U	18	36	1
10723	bis(2-Chloroethyl)ether	111-44-4	18 U	18	36	1
10723	2-Chloronaphthalene	91-58-7	7 U	7	36	1
10723	2-Chlorophenol	95-57-8	18 U	18	36	1
10723	4-Chlorophenyl-phenylether	7005-72-3	18 U	18	36	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	18 U	18	36	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	Chrysene	218-01-9	4 U	4	19	1
10723	Dibenz(a,h)anthracene	53-70-3	4 U	4	19	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300733  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/kg	ug/kg	ug/kg	
10723	Dibenzofuran	132-64-9	18 U	18	36	1
10723	3,3'-Dichlorobenzidine	91-94-1	110 U	110	360	1
10723	2,4-Dichlorophenol	120-83-2	18 U	18	36	1
10723	Diethylphthalate	84-66-2	73 U	73	180	1
10723	2,4-Dimethylphenol	105-67-9	18 U	18	36	1
10723	Dimethylphthalate	131-11-3	73 U	73	180	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	180 U	180	550	1
10723	2,4-Dinitrophenol	51-28-5	330 U	330	1,100	1
10723	2,4-Dinitrotoluene	121-14-2	73 U	73	180	1
10723	2,6-Dinitrotoluene	606-20-2	18 U	18	36	1
10723	1,4-Dioxane	123-91-1	110 U	110	360	1
10723	Diphenyl ether	101-84-8	18 U	18	36	1
10723	1,2-Diphenylhydrazine	122-66-7	18 U	18	36	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	73 U	73	190	1
10723	Fluoranthene	206-44-0	4 U	4	19	1
10723	Fluorene	86-73-7	4 U	4	19	1
10723	Hexachlorobenzene	118-74-1	4 U	4	19	1
10723	Hexachlorobutadiene	87-68-3	18 U	18	36	1
10723	Hexachlorocyclopentadiene	77-47-4	180 U	180	550	1
10723	Hexachloroethane	67-72-1	36 U	36	180	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	4 U	4	19	1
10723	Isophorone	78-59-1	18 U	18	36	1
10723	2-Methylnaphthalene	91-57-6	4 U	4	19	1
10723	2-Methylphenol	95-48-7	18 U	18	36	1
10723	4-Methylphenol	106-44-5	18 U	18	36	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10723	<b>Naphthalene</b>	91-20-3	<b>11 J</b>	4	19	1
10723	1-Naphthylamine	134-32-7	180 U	180	550	1
10723	2-Naphthylamine	91-59-8	180 U	180	550	1
10723	2-Nitroaniline	88-74-4	18 U	18	36	1
10723	3-Nitroaniline	99-09-2	73 U	73	180	1
10723	4-Nitroaniline	100-01-6	73 U	73	180	1
10723	Nitrobenzene	98-95-3	18 U	18	36	1
10723	2-Nitrophenol	88-75-5	18 U	18	36	1
10723	4-Nitrophenol	100-02-7	180 U	180	550	1
10723	N-Nitrosodimethylamine	62-75-9	73 U	73	180	1
10723	N-Nitroso-di-n-propylamine	621-64-7	18 U	18	36	1
10723	N-Nitrosodiphenylamine	86-30-6	18 U	18	36	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300733  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	
10723	Di-n-octylphthalate	117-84-0	73 U	73	180	1
10723	Parathion	56-38-2	180 U	180	550	1
10723	Pentachlorobenzene	608-93-5	18 U	18	36	1
10723	Pentachlorophenol	87-86-5	36 U	36	190	1
10723	Phenanthrene	85-01-8	4 U	4	19	1
10723	Phenol	108-95-2	18 U	18	36	1
10723	Pyrene	129-00-0	4 U	4	19	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	73 U	73	180	1
10723	o-Toluidine	95-53-4	220 U	220	730	1
10723	1,2,4-Trichlorobenzene	120-82-1	18 U	18	36	1
10723	2,4,5-Trichlorophenol	95-95-4	18 U	18	36	1
10723	2,4,6-Trichlorophenol	88-06-2	18 U	18	36	1

The project QA/QC requirements were not met.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Wet Chemistry	SW-846 9060A modified	mg/kg	mg/kg	mg/kg	
02079 Total Organic Carbon (TOC)	n.a.	561	117	352	1
<b>Wet Chemistry</b>	<b>SM 2540 G-1997</b>	%	%	%	
00111 <b>Moisture</b>	n.a.	<b>8.7</b>	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	X173182AA	11/14/2017 14:07	Linda C Pape	0.92
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	Q173192AA	11/15/2017 17:09	Jennifer K Howe	47.89
13101	Freons	SW-846 8260FRN Modified	1	J173181AA	11/14/2017 12:35	Kevin A Sposito	1.28

\*=This limit was used in the evaluation of the final result

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**Sample Description:** D15-BOR-21-(7.8-8.0) Soil  
DE RIVER NAPL DELINEATION PHASE III**CRG-The Chemours Co. FC, LLC**  
**ELLE Sample #:** SW 9300733  
**ELLE Group #:** 1871371  
**Matrix:** Soil**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE IIISubmittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:25**Laboratory Sample Analysis Record**

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 20:02	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 20:03	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 20:03	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 20:04	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 20:01	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 17:01	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17317667633B	11/15/2017 07:03	Drew M Gerhart	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

! \_\_\_\_\_ !  
! B21-5 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300733  
Sample wt/vol: 5.43 (g/mL) g Lab File ID: HP09193.i/17nov14a.b/xn14s38.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: not dec. 8.7 Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 1.0  
Number TICs found: 1 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-11-7	1-Propene, 2-methyl-	2.18	5	J
2.				
3. VOCTIC	Total VOC TICs		5	J
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page 1 of 1

FORM I VOA-TIC

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

! \_\_\_\_\_ !  
!B21-5 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
 Lab Code: LANCAS Case No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Matrix: (soil/water) SOIL Lab Sample ID: 9300733  
 Sample wt/vol: 30.13 (g/mL) g Lab File ID: ok0580.d  
 Level: (low/med) LOW Date Received: 11/04/17  
 % Moisture: 8.7 Decanted: (Y/N) Date Extracted: 11/11/17  
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/13/17  
 Injection Volume: 1 (uL) Dilution Factor: 1  
 GPC Cleanup: N pH: Extraction: Mic

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	!Unknown Aldol Condensate	2.998	170	JB
2.112-18-5	!1-Dodecanamine, N,N-dimethyl	8.316	440	J
3.	!Unknown	8.351	210	J
4.80-05-7	!Phenol, 4,4'-(1-methylethylidene)diphenyl	11.180	170	J
5.				
6.SVOCTIC	!Total SVOC TICs		980	JB
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page 1 of 1

FORM I SV-1

**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	360 U	360	1,000	42.23
10237	<b>Benzene</b>	71-43-2	<b>1,100</b>	26	260	42.23
10237	Bromodichloromethane	75-27-4	52 U	52	260	42.23
10237	2-Butanone	78-93-3	210 U	210	520	42.23
10237	n-Butylbenzene	104-51-8	52 U	52	260	42.23
10237	sec-Butylbenzene	135-98-8	52 U	52	260	42.23
10237	tert-Butylbenzene	98-06-6	52 U	52	260	42.23
10237	Carbon Disulfide	75-15-0	52 U	52	260	42.23
10237	Carbon Tetrachloride	56-23-5	52 U	52	260	42.23
10237	<b>Chlorobenzene</b>	108-90-7	<b>7,400</b>	52	260	42.23
10237	Chloroethane	75-00-3	100 U	100	260	42.23
10237	<b>Chloroform</b>	67-66-3	<b>120</b> J	52	260	42.23
10237	Chloromethane	74-87-3	100 U	100	260	42.23
10237	2-Chlorotoluene	95-49-8	52 U	52	260	42.23
10237	4-Chlorotoluene	106-43-4	52 U	52	260	42.23
10237	Chlorotrifluoroethene	79-38-9	100 U	100	260	42.23
10237	Dibromochloromethane	124-48-1	52 U	52	260	42.23
10237	1,2-Dibromoethane	106-93-4	52 U	52	260	42.23
10237	<b>1,2-Dichlorobenzene</b>	95-50-1	<b>730</b>	52	260	42.23
10237	<b>1,3-Dichlorobenzene</b>	541-73-1	<b>60</b> J	52	260	42.23
10237	<b>1,4-Dichlorobenzene</b>	106-46-7	<b>1,400</b>	52	260	42.23
10237	Dichlorodifluoromethane	75-71-8	100 U	100	260	42.23
10237	1,1-Dichloroethane	75-34-3	52 U	52	260	42.23
10237	1,2-Dichloroethane	107-06-2	52 U	52	260	42.23
10237	1,1-Dichloroethene	75-35-4	52 U	52	260	42.23
10237	cis-1,2-Dichloroethene	156-59-2	52 U	52	260	42.23
10237	trans-1,2-Dichloroethene	156-60-5	52 U	52	260	42.23
10237	1,2-Dichloroethene (Total)	540-59-0	52 U	52	260	42.23
10237	Dichlorofluoromethane	75-43-4	100 U	100	260	42.23
10237	1,2-Dichloropropane	78-87-5	52 U	52	260	42.23
10237	1,1-Dichloropropene	563-58-6	52 U	52	260	42.23
10237	cis-1,3-Dichloropropene	10061-01-5	52 U	52	260	42.23
10237	Ethylbenzene	100-41-4	52 U	52	260	42.23
10237	Freon 113	76-13-1	100 U	100	520	42.23
10237	Freon 133a	75-88-7	100 U	100	260	42.23
10237	n-Hexane	110-54-3	52 U	52	260	42.23
10237	2-Hexanone	591-78-6	160 U	160	520	42.23
10237	Isobutyl Alcohol	78-83-1	5,200 U	5,200	13,000	42.23
10237	Isopropylbenzene	98-82-8	52 U	52	260	42.23
10237	p-Isopropyltoluene	99-87-6	52 U	52	260	42.23
10237	Methacrylonitrile	126-98-7	260 U	260	2,600	42.23
10237	Methyl Methacrylate	80-62-6	52 U	52	260	42.23

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10237	Methyl Tertiary Butyl Ether	1634-04-4	26 U	26	260	42.23
10237	4-Methyl-2-pentanone	108-10-1	160 U	160	520	42.23
10237	Methylene Chloride	75-09-2	100 U	100	260	42.23
10237	Propionitrile	107-12-0	1,600 U	1,600	5,200	42.23
10237	n-Propylbenzene	103-65-1	52 U	52	260	42.23
10237	Styrene	100-42-5	52 U	52	260	42.23
10237	1,1,1,2-Tetrachloroethane	630-20-6	52 U	52	260	42.23
10237	1,1,2,2-Tetrachloroethane	79-34-5	52 U	52	260	42.23
10237	Tetrachloroethene	127-18-4	52 U	52	260	42.23
10237	Tetrahydrofuran	109-99-9	210 U	210	420	42.23
10237	Toluene	108-88-3	52 U	52	260	42.23
10237	1,1,1-Trichloroethane	71-55-6	52 U	52	260	42.23
10237	1,1,2-Trichloroethane	79-00-5	52 U	52	260	42.23
10237	Trichloroethene	79-01-6	52 U	52	260	42.23
10237	Trichlorofluoromethane	75-69-4	100 U	100	260	42.23
10237	1,2,4-Trimethylbenzene	95-63-6	52 U	52	260	42.23
10237	1,3,5-Trimethylbenzene	108-67-8	52 U	52	260	42.23
10237	Vinyl Chloride	75-01-4	52 U	52	260	42.23
10237	<b>m+p-Xylene</b>	179601-23-1	<b>68 J</b>	52	260	42.23
10237	<b>o-Xylene</b>	95-47-6	<b>63 J</b>	52	260	42.23
10237	<b>Xylene (Total)</b>	1330-20-7	<b>130 J</b>	52	260	42.23

The project QA/QC requirements were not met.

The percent drift for the following is >20% in the continuing calibration verification standard associated with this sample: chloroethane.

The NJ DKQP required reporting limit could not be attained for 1,2-dibromoethane.

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/kg	ug/kg	ug/kg		
13101	Chlorodifluoroethane	75-68-3	1 U	1	6	0.89
13101	Chlorodifluoromethane	75-45-6	2 U	2	6	0.89
13101	Chlorofluoromethane	593-70-4	1 U	1	6	0.89
13101	Chloropentafluoroethane	76-15-3	17 UZ	17	55	0.89
13101	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	6	0.89
13101	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	6	0.89
13101	Dichlorotetrafluoroethane	76-14-2	2 U	2	6	0.89

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260FRN Modified</b>	ug/kg	ug/kg	ug/kg	
13101	1,2-Dichlorotrifluoroethane	354-23-4	<b>6</b>	1	6	0.89
13101	Dichlorotrifluoroethane	306-83-2	1 U	1	6	0.89
13101	Fluoromethane	593-53-3	3 UZ	3	11	0.89
13101	Freon 113a	354-58-5	6 U	6	22	0.89
13101	1,1,2-Trifluoroethane	430-66-0	2 U	2	6	0.89
13101	Vinyl fluoride	75-02-5	7 UZ	7	22	0.89

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

#### 00884 Volatile Library Search - 15

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

CAT No.	Analysis Name	CAS Number	ug/kg	ug/kg	ug/kg	Dilution Factor
10723	Acenaphthene	83-32-9	4 U	4	21	1
10723	Acenaphthylene	208-96-8	4 U	4	21	1
10723	Acetophenone	98-86-2	20 U	20	41	1
10723	4-Aminobiphenyl	92-67-1	200 U	200	610	1
10723	Aniline	62-53-3	200 U	200	610	1
10723	Anthracene	120-12-7	4 U	4	21	1
10723	Benzidine	92-87-5	310 U	310	610	1
10723	Benzo(a)anthracene	56-55-3	4 U	4	21	1
10723	Benzo(a)pyrene	50-32-8	4 U	4	21	1
10723	Benzo(b)fluoranthene	205-99-2	4 U	4	21	1
10723	Benzo(g,h,i)perylene	191-24-2	4 U	4	21	1
10723	Benzo(k)fluoranthene	207-08-9	4 U	4	21	1
10723	1,1'-Biphenyl	92-52-4	20 U	20	41	1
10723	4-Bromophenyl-phenylether	101-55-3	20 U	20	41	1
10723	Butylbenzylphthalate	85-68-7	82 U	82	200	1
10723	Di-n-butylphthalate	84-74-2	82 U	82	200	1
10723	Carbazole	86-74-8	20 U	20	41	1
10723	4-Chloro-3-methylphenol	59-50-7	20 U	20	41	1
10723	4-Chloroaniline	106-47-8	41 U	41	82	1
10723	bis(2-Chloroethoxy)methane	111-91-1	20 U	20	41	1
10723	bis(2-Chloroethyl)ether	111-44-4	20 U	20	41	1
10723	2-Chloronaphthalene	91-58-7	8 U	8	41	1
10723	<b>2-Chlorophenol</b>	95-57-8	<b>41 J</b>	20	41	1
10723	4-Chlorophenyl-phenylether	7005-72-3	20 U	20	41	1
10723	2,2'-oxybis(1-Chloropropane)	108-60-1	20 U	20	41	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270C		ug/kg	ug/kg	ug/kg	
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
10723	Chrysene	218-01-9	4 U	4	21	1
10723	Dibenz(a,h)anthracene	53-70-3	4 U	4	21	1
10723	Dibenzofuran	132-64-9	20 U	20	41	1
10723	3,3'-Dichlorobenzidine	91-94-1	120 U	120	410	1
10723	2,4-Dichlorophenol	120-83-2	20 U	20	41	1
10723	Diethylphthalate	84-66-2	82 U	82	200	1
10723	2,4-Dimethylphenol	105-67-9	20 U	20	41	1
10723	Dimethylphthalate	131-11-3	82 U	82	200	1
10723	4,6-Dinitro-2-methylphenol	534-52-1	200 U	200	610	1
10723	2,4-Dinitrophenol	51-28-5	370 U	370	1,200	1
10723	2,4-Dinitrotoluene	121-14-2	82 U	82	200	1
10723	2,6-Dinitrotoluene	606-20-2	20 U	20	41	1
10723	1,4-Dioxane	123-91-1	120 U	120	410	1
10723	Diphenyl ether	101-84-8	20 U	20	41	1
10723	1,2-Diphenylhydrazine	122-66-7	20 U	20	41	1
10723	bis(2-Ethylhexyl)phthalate	117-81-7	82 U	82	210	1
10723	Fluoranthene	206-44-0	4 U	4	21	1
10723	Fluorene	86-73-7	4 U	4	21	1
10723	Hexachlorobenzene	118-74-1	4 U	4	21	1
10723	Hexachlorobutadiene	87-68-3	20 U	20	41	1
10723	Hexachlorocyclopentadiene	77-47-4	200 U	200	610	1
10723	Hexachloroethane	67-72-1	41 U	41	200	1
10723	Indeno(1,2,3-cd)pyrene	193-39-5	4 U	4	21	1
10723	Isophorone	78-59-1	20 U	20	41	1
10723	2-Methylnaphthalene	91-57-6	4 U	4	21	1
10723	2-Methylphenol	95-48-7	20 U	20	41	1
10723	4-Methylphenol	106-44-5	20 U	20	41	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10723	Naphthalene	91-20-3	6 J	4	21	1
10723	1-Naphthylamine	134-32-7	200 U	200	610	1
10723	2-Naphthylamine	91-59-8	200 U	200	610	1
10723	2-Nitroaniline	88-74-4	20 U	20	41	1
10723	3-Nitroaniline	99-09-2	82 U	82	200	1
10723	4-Nitroaniline	100-01-6	82 U	82	200	1
10723	Nitrobenzene	98-95-3	20 U	20	41	1
10723	2-Nitrophenol	88-75-5	20 U	20	41	1
10723	4-Nitrophenol	100-02-7	200 U	200	610	1
10723	N-Nitrosodimethylamine	62-75-9	82 U	82	200	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270C</b>						
10723	N-Nitroso-di-n-propylamine	621-64-7	20 U	20	41	1
10723	N-Nitrosodiphenylamine	86-30-6	20 U	20	41	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10723	Di-n-octylphthalate	117-84-0	82 U	82	200	1
10723	Parathion	56-38-2	200 U	200	610	1
10723	Pentachlorobenzene	608-93-5	20 U	20	41	1
10723	Pentachlorophenol	87-86-5	41 U	41	210	1
10723	Phenanthrene	85-01-8	4 U	4	21	1
10723	Phenol	108-95-2	20 U	20	41	1
10723	Pyrene	129-00-0	4 U	4	21	1
10723	2,3,4,6-Tetrachlorophenol	58-90-2	82 U	82	200	1
10723	o-Toluidine	95-53-4	250 U	250	820	1
10723	1,2,4-Trichlorobenzene	120-82-1	20 U	20	41	1
10723	2,4,5-Trichlorophenol	95-95-4	20 U	20	41	1
10723	2,4,6-Trichlorophenol	88-06-2	20 U	20	41	1

The project QA/QC requirements were not met.  
Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

#### 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Wet Chemistry	SW-846 9060A modified	mg/kg	mg/kg	mg/kg	
02079 Total Organic Carbon (TOC)	n.a.	1,030	127	381	1
<b>Wet Chemistry SM 2540 G-1997 %Moisture Calc</b>					
00111 Moisture	n.a.	18.9	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

#### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

\*=This limit was used in the evaluation of the final result

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**Sample Description:** D15-BOR-21-(8.0-8.3) Soil  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: SW 9300734  
ELLE Group #: 1871371  
Matrix: Soil

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 11:30

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	R173171AA	11/14/2017 02:02	Stephen C Nolte	42.23
13101	Freons	SW-846 8260FRN Modified	1	J173181AA	11/14/2017 19:02	Kevin A Sposito	0.89
08389	GC/MS - LL Encore Prep	SW-846 5035A	1	201730847774	11/04/2017 20:07	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	2	201730847774	11/04/2017 20:08	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	3	201730847774	11/04/2017 20:09	Rebecca Williams	n.a.
08389	GC/MS - LL Encore Prep	SW-846 5035A	4	201730847774	11/04/2017 20:09	Rebecca Williams	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201730847774	11/04/2017 20:06	Rebecca Williams	n.a.
10723	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17314SLE026	11/13/2017 17:23	Linda M Hartenstine	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	17314SLE026	11/11/2017 08:00	David S Schrum	1
02079	Total Organic Carbon (TOC)	SW-846 9060A modified	1	17317667633B	11/15/2017 07:16	Drew M Gerhart	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	17311820007B	11/07/2017 22:07	Scott W Freisher	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS! \_\_\_\_\_ !  
! B21-6 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) SOIL Lab Sample ID: 9300734  
Sample wt/vol: 5.92 (g/mL) g Lab File ID: HP07566.i/17nov13a.b/rn13s43.d  
Level: (low/med) MED Date Received: 11/04/17  
% Moisture: not dec. 18.9 Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 42.2  
Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
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page 1 of 1

FORM I VOA-TIC

1F

EPA SAMPLE NO.

**SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET**  
**TENTATIVELY IDENTIFIED COMPOUNDS**
! \_\_\_\_\_ !  
!B21-6 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
 Lab Code: LANCAS Case No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Matrix: (soil/water) SOIL Lab Sample ID: 9300734  
 Sample wt/vol: 30.11(g/mL) g Lab File ID: ok0581.d  
 Level: (low/med) LOW Date Received: 11/04/17  
 % Moisture: 18.9 Decanted: (Y/N) Date Extracted: 11/11/17  
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/13/17  
 Injection Volume: 1 (uL) Dilution Factor: 1  
 GPC Cleanup: N pH: Extraction: Mic

## CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Aldol Condensate	2.998	270	JB
2.57-10-3	n-Hexadecanoic acid	10.321	230	J
3.80-05-7	Phenol, 4,4'-(1-methylethyli	11.174	460	J
4.				
5.SVOCTIC	Total SVOC TICs		960	JB
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page 1 of 1

FORM I SV-1

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	6 U	6	20	1
10335	Benzene	71-43-2	0.5 U	0.5	1	1
10335	Bromodichloromethane	75-27-4	0.5 U	0.5	1	1
10335	2-Butanone	78-93-3	3 U	3	10	1
10335	n-Butylbenzene	104-51-8	1 U	1	5	1
10335	sec-Butylbenzene	135-98-8	1 U	1	5	1
10335	tert-Butylbenzene	98-06-6	1 U	1	5	1
10335	Carbon Disulfide	75-15-0	1 U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5 U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5 U	0.5	1	1
10335	Chloroethane	75-00-3	0.5 U	0.5	1	1
10335	Chloroform	67-66-3	0.5 U	0.5	1	1
10335	Chloromethane	74-87-3	0.5 U	0.5	1	1
10335	2-Chlorotoluene	95-49-8	1 U	1	5	1
10335	4-Chlorotoluene	106-43-4	1 U	1	5	1
10335	Chlorotrifluoroethene	79-38-9	2 U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5 U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5 U	0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	1 U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1 U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	0.5 U	0.5	1	1
10335	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5 U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5 U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5 U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5 U	0.5	1	1
10335	1,2-Dichloroethene (Total)	540-59-0	0.5 U	0.5	1	1
10335	Dichlorofluoromethane	75-43-4	0.5 U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1	1
10335	1,1-Dichloropropene	563-58-6	1 U	1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5 U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5 U	0.5	1	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Freon 133a	75-88-7	2 U	2	5	1
10335	n-Hexane	110-54-3	2 U	2	5	1
10335	2-Hexanone	591-78-6	3 U	3	10	1
10335	Isobutyl Alcohol	78-83-1	100 U	100	250	1
10335	Isopropylbenzene	98-82-8	1 U	1	5	1
10335	p-Isopropyltoluene	99-87-6	1 U	1	5	1
10335	Methacrylonitrile	126-98-7	10 U	10	50	1
10335	Methyl Methacrylate	80-62-6	1 U	1	5	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40

Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>		ug/l	ug/l	ug/l	
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3 U	3	10	1
10335	Methylene Chloride	75-09-2	0.5 U	0.5	1	1
10335	Propionitrile	107-12-0	30 U	30	100	1
10335	n-Propylbenzene	103-65-1	1 U	1	5	1
10335	Styrene	100-42-5	1 U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5 U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5 U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5 U	0.5	1	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.5 U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5 U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5 U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5 U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5 U	0.5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5	1
10335	Vinyl Chloride	75-01-4	0.5 U	0.5	1	1
10335	m+p-Xylene	179601-23-1	0.5 U	0.5	1	1
10335	o-Xylene	95-47-6	0.5 U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5 U	0.5	1	1

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The NJ DKQP required reporting limit could not be attained for 1,2-Dibromoethane.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/l	ug/l	ug/l	
13066	Chlorodifluoroethane	75-68-3	1 UZ	1	5
13066	Chlorodifluoromethane	75-45-6	2 U	2	5
13066	Chlorofluoromethane	593-70-4	1 U	1	5
13066	Chloropentafluoroethane	76-15-3	15 U	15	50
13066	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	5
13066	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	5
13066	Dichlorotetrafluoroethane	76-14-2	2 U	2	5
13066	1,2-Dichlorotrifluoroethane	354-23-4	1 U	1	5
13066	Dichlorotrifluoroethane	306-83-2	1 U	1	5
13066	Fluoromethane	593-53-3	3 U	3	10
13066	Freon 113a	354-58-5	5 U	5	20
13066	1,1,2-Trifluoroethane	430-66-0	2 U	2	5
13066	Vinyl fluoride	75-02-5	2 U	2	10

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.						

#### 00884 Volatile Library Search - 15

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

GC/MS Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
14239 Acenaphthene	83-32-9	0.1 U	0.1	0.5	1
14239 Acenaphthylene	208-96-8	0.1 U	0.1	0.5	1
14239 Acetophenone	98-86-2	0.5 U	0.5	1	1
14239 4-Aminobiphenyl	92-67-1	0.5 UZ	0.5	1	1
14239 Aniline	62-53-3	0.5 U	0.5	1	1
14239 Anthracene	120-12-7	0.1 U	0.1	0.5	1
14239 Benzidine	92-87-5	20 U	20	60	1
14239 Benzo(a)anthracene	56-55-3	0.1 U	0.1	0.5	1
14239 Benzo(a)pyrene	50-32-8	0.1 U	0.1	0.5	1
14239 Benzo(b)fluoranthene	205-99-2	0.1 U	0.1	0.5	1
14239 Benzo(g,h,i)perylene	191-24-2	0.1 U	0.1	0.5	1
14239 Benzo(k)fluoranthene	207-08-9	0.1 U	0.1	0.5	1
14239 1,1'-Biphenyl	92-52-4	0.5 U	0.5	1	1
14239 4-Bromophenyl-phenylether	101-55-3	0.5 U	0.5	1	1
14239 Butylbenzylphthalate	85-68-7	2 U	2	5	1
14239 Di-n-butylphthalate	84-74-2	2 U	2	5	1
14239 Carbazole	86-74-8	0.5 U	0.5	1	1
14239 4-Chloro-3-methylphenol	59-50-7	0.5 U	0.5	1	1
14239 4-Chloroaniline	106-47-8	2 U	2	4	1
14239 bis(2-Chloroethoxy)methane	111-91-1	0.5 U	0.5	1	1
14239 bis(2-Chloroethyl)ether	111-44-4	0.5 U	0.5	1	1
14239 2-Chloronaphthalene	91-58-7	0.4 U	0.4	1	1
14239 2-Chlorophenol	95-57-8	0.5 U	0.5	1	1
14239 4-Chlorophenyl-phenylether	7005-72-3	0.5 U	0.5	1	1
14239 2,2'-oxybis(1-Chloropropane)	108-60-1	0.5 U	0.5	1	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
14239 Chrysene	218-01-9	0.1 U	0.1	0.5	1
14239 Dibenz(a,h)anthracene	53-70-3	0.1 U	0.1	0.5	1
14239 Dibenzofuran	132-64-9	0.5 U	0.5	1	1
14239 3,3'-Dichlorobenzidine	91-94-1	2 U	2	5	1
14239 2,4-Dichlorophenol	120-83-2	0.5 U	0.5	1	1
14239 Diethylphthalate	84-66-2	2 U	2	5	1
14239 2,4-Dimethylphenol	105-67-9	0.5 U	0.5	1	1
14239 Dimethylphthalate	131-11-3	2 U	2	5	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40

Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/l	ug/l	ug/l	
14239	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	15	1
14239	2,4-Dinitrophenol	51-28-5	10 U	10	30	1
14239	2,4-Dinitrotoluene	121-14-2	1 U	1	5	1
14239	2,6-Dinitrotoluene	606-20-2	0.5 U	0.5	1	1
14239	1,4-Dioxane	123-91-1	1 U	1	5	1
14239	Diphenyl ether	101-84-8	0.5 U	0.5	1	1
14239	1,2-Diphenylhydrazine	122-66-7	0.5 U	0.5	1	1
14239	bis(2-Ethylhexyl)phthalate	117-81-7	2 U	2	5	1
14239	Fluoranthene	206-44-0	0.1 U	0.1	0.5	1
14239	Fluorene	86-73-7	0.1 U	0.1	0.5	1
14239	Hexachlorobenzene	118-74-1	0.1 U	0.1	0.5	1
14239	Hexachlorobutadiene	87-68-3	0.5 U	0.5	1	1
14239	Hexachlorocyclopentadiene	77-47-4	5 U	5	15	1
14239	Hexachloroethane	67-72-1	1 U	1	5	1
14239	Indeno(1,2,3-cd)pyrene	193-39-5	0.1 U	0.1	0.5	1
14239	Isophorone	78-59-1	0.5 U	0.5	1	1
14239	2-Methylnaphthalene	91-57-6	0.1 U	0.1	0.5	1
14239	2-Methylphenol	95-48-7	0.5 U	0.5	1	1
14239	4-Methylphenol	106-44-5	0.5 U	0.5	1	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14239	Naphthalene	91-20-3	0.1 U	0.1	0.5	1
14239	1-Naphthylamine	134-32-7	5 U	5	15	1
14239	2-Naphthylamine	91-59-8	5 U	5	15	1
14239	2-Nitroaniline	88-74-4	0.5 U	0.5	1	1
14239	3-Nitroaniline	99-09-2	0.5 U	0.5	1	1
14239	4-Nitroaniline	100-01-6	0.5 U	0.5	1	1
14239	Nitrobenzene	98-95-3	0.5 U	0.5	1	1
14239	2-Nitrophenol	88-75-5	0.5 U	0.5	1	1
14239	4-Nitrophenol	100-02-7	10 U	10	30	1
14239	N-Nitrosodimethylamine	62-75-9	2 U	2	5	1
14239	N-Nitroso-di-n-propylamine	621-64-7	0.5 U	0.5	1	1
14239	N-Nitrosodiphenylamine	86-30-6	0.5 U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
14239	Di-n-octylphthalate	117-84-0	2 U	2	5	1
14239	Parathion	56-38-2	2 U	2	5	1
14239	Pentachlorobenzene	608-93-5	0.5 U	0.5	1	1
14239	Pentachlorophenol	87-86-5	1 U	1	5	1
14239	Phenanthrene	85-01-8	0.1 U	0.1	0.5	1
14239	Phenol	108-95-2	0.5 U	0.5	1	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	<b>GC/MS Semivolatiles</b>	<b>SW-846 8270C</b>	ug/l	ug/l	ug/l	
14239	Pyrene	129-00-0	0.1 U	0.1	0.5	1
14239	2,3,4,6-Tetrachlorophenol	58-90-2	0.5 U	0.5	1	1
14239	o-Toluidine	95-53-4	0.5 U	0.5	1	1
14239	1,2,4-Trichlorobenzene	120-82-1	0.5 U	0.5	1	1
14239	2,4,5-Trichlorophenol	95-95-4	0.5 U	0.5	1	1
14239	2,4,6-Trichlorophenol	88-06-2	0.5 U	0.5	1	1

The project QA/QC requirements were not met.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial. Similar results were obtained in both trials.

Z=The response for a target analyte(s) in the initial calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.

## 00886 SVOA Library Search - 25

The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

Metals	<b>SW-846 6010B</b>	mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0894 U	0.0894	0.200
01750	<b>Calcium</b>	7440-70-2	<b>0.276</b>	0.0600	0.200
The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.					
01754	Iron	7439-89-6	0.0805 U	0.0805	0.200
01757	Magnesium	7439-95-4	0.0374 U	0.0374	0.100
01762	Potassium	7440-09-7	0.179 U	0.179	0.500
01767	<b>Sodium</b>	7440-23-5	<b>0.618 J</b>	0.321	1.00
07072	Zinc	7440-66-6	0.0065 U	0.0065	0.0200

	<b>SW-846 6020</b>	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00045 U	0.00045	0.0010
The NJ DKQP analyte list requirement was not met for Metals. The client specified list is reported.					
06025	Arsenic	7440-38-2	0.00072 U	0.00072	0.0020
06026	Barium	7440-39-3	0.00072 U	0.00072	0.0020
06027	Beryllium	7440-41-7	0.000071 U	0.000071	0.00050
06028	Cadmium	7440-43-9	0.00015 U	0.00015	0.00050

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>Metals</b>						
06031	Chromium	7440-47-3	0.00087 U	0.00087	0.0020	1
06032	Cobalt	7440-48-4	0.00016 U	0.00016	0.00050	1
06033	Copper	7440-50-8	0.00054 U	0.00054	0.0020	1
06035	Lead	7439-92-1	0.00011 U	0.00011	0.0010	1
06037	Manganese	7439-96-5	0.00090 U	0.00090	0.0020	1
06039	Nickel	7440-02-0	0.0010 U	0.0010	0.0020	1
06041	Selenium	7782-49-2	0.00050 U	0.00050	0.0020	1
06042	Silver	7440-22-4	0.00015 U	0.00015	0.00050	1
06045	Thallium	7440-28-0	0.00012 U	0.00012	0.00050	1
06048	Vanadium	7440-62-2	0.00021 U	0.00021	0.00050	1
<b>SW-846 7470A</b>						
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
<b>Wet Chemistry</b>						
00354	Total Organic Carbon (Quad)	n.a.	0.50 U	0.50	1.0	1
The reported result is the average of the following trials: 0 mg/l 0 mg/l 0 mg/l 0 mg/l						

### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	Y173182AA	11/14/2017 22:49	Don V Viray	1
13066	Freons	SW-846 8260FRN Modified	1	J173111AA	11/07/2017 16:31	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y173182AA	11/14/2017 22:49	Don V Viray	1
14239	TCL SVOAs + Add'l Cmpds	SW-846 8270C	1	17310WAE026	11/20/2017 03:15	William H Saadeh	1
10464	BNA Water Extraction (App IX)	SW-846 3510C	1	17310WAE026	11/06/2017 17:05	Christine E Gleim	1
01743	Aluminum	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
01750	Calcium	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
01754	Iron	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
01757	Magnesium	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
01762	Potassium	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
01767	Sodium	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
07072	Zinc	SW-846 6010B	1	173100570504	11/07/2017 21:18	Cindy M Gehman	1
06024	Antimony	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-EQBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300735  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06025	Arsenic	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06026	Barium	SW-846 6020	1	173100605001D	11/13/2017 07:37	Sarah L Burt	1
06027	Beryllium	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06028	Cadmium	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06031	Chromium	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06032	Cobalt	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06033	Copper	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06035	Lead	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06037	Manganese	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06039	Nickel	SW-846 6020	1	173200605002A	11/17/2017 06:42	Sarah L Burt	1
06041	Selenium	SW-846 6020	1	173100605001B	11/13/2017 07:37	Sarah L Burt	1
06042	Silver	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06045	Thallium	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
06048	Vanadium	SW-846 6020	1	173100605001A	11/13/2017 07:37	Sarah L Burt	1
00259	Mercury	SW-846 7470A	1	173100571312	11/08/2017 12:35	Damary Valentin	1
05705	ICP-WW/TL, 3010A (tot) - U3	SW-846 3010A	1	173100570504	11/06/2017 21:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	173100605001	11/07/2017 06:00	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	2	173200605002	11/16/2017 17:55	Barbara A Kane	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	173100571312	11/08/2017 02:15	Annamaria Kuhns	1
00354	Total Organic Carbon (Quad)	SW-846 9060A	1	17317667604A	11/13/2017 23:24	Drew M Gerhart	1

\*=This limit was used in the evaluation of the final result

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

! \_\_\_\_\_ !  
! B21E4 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: SAS No.: SDG No.:  
Matrix: (soil/water) WATER Lab Sample ID: 9300735  
Sample wt/vol: 5.0 (g/mL) mL Lab File ID: HP09355.i/17nov14b.b/yn14s47.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture: not dec. Date Analyzed: 11/14/17  
Column: (pack/cap) CAP Dilution Factor: 1.0  
Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
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FORM I VOA-TIC

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1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

! \_\_\_\_\_ !  
!B21E4 !

Lab Name: Lancaster Laboratories Contract: \_\_\_\_\_  
Lab Code: LANCAS Case No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix: (soil/water) WATER Lab Sample ID: 9300735  
Sample wt/vol: 248 (g/mL) mL Lab File ID: hk0869.d  
Level: (low/med) LOW Date Received: 11/04/17  
% Moisture:  Decanted: (Y/N) Date Extracted: 11/06/17  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/17  
Injection Volume: 0.5 (uL) Dilution Factor: 1  
GPC Cleanup: N pH: Extraction: Sepf

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	!Unknown	18.365	8	J
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3.SVOCTIC	Total SVOC TICs		8	J
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page 1 of 1

FORM I SV-1

**Sample Description:** CWKDERIVER3-TBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300736  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>	ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	6 U	6	20	1
10335	Benzene	71-43-2	0.5 U	0.5	1	1
10335	Bromodichloromethane	75-27-4	0.5 U	0.5	1	1
10335	2-Butanone	78-93-3	3 U	3	10	1
10335	n-Butylbenzene	104-51-8	1 U	1	5	1
10335	sec-Butylbenzene	135-98-8	1 U	1	5	1
10335	tert-Butylbenzene	98-06-6	1 U	1	5	1
10335	Carbon Disulfide	75-15-0	1 U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5 U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5 U	0.5	1	1
10335	Chloroethane	75-00-3	0.5 U	0.5	1	1
10335	Chloroform	67-66-3	0.5 U	0.5	1	1
10335	Chloromethane	74-87-3	0.5 U	0.5	1	1
10335	2-Chlorotoluene	95-49-8	1 U	1	5	1
10335	4-Chlorotoluene	106-43-4	1 U	1	5	1
10335	Chlorotrifluoroethene	79-38-9	2 U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5 U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5 U	0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	1 U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1 U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1 U	1	5	1
10335	Dichlorodifluoromethane	75-71-8	0.5 U	0.5	1	1
10335	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5 U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5 U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5 U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5 U	0.5	1	1
10335	1,2-Dichloroethene (Total)	540-59-0	0.5 U	0.5	1	1
10335	Dichlorofluoromethane	75-43-4	0.5 U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1	1
10335	1,1-Dichloropropene	563-58-6	1 U	1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5 U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5 U	0.5	1	1
10335	Freon 113	76-13-1	2 U	2	10	1
10335	Freon 133a	75-88-7	2 U	2	5	1
10335	n-Hexane	110-54-3	2 U	2	5	1
10335	2-Hexanone	591-78-6	3 U	3	10	1
10335	Isobutyl Alcohol	78-83-1	100 U	100	250	1
10335	Isopropylbenzene	98-82-8	1 U	1	5	1
10335	p-Isopropyltoluene	99-87-6	1 U	1	5	1
10335	Methacrylonitrile	126-98-7	10 U	10	50	1
10335	Methyl Methacrylate	80-62-6	1 U	1	5	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-TBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300736  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40

Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>	<b>SW-846 8260B</b>		ug/l	ug/l	ug/l	
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3 U	3	10	1
10335	Methylene Chloride	75-09-2	0.5 U	0.5	1	1
10335	Propionitrile	107-12-0	30 U	30	100	1
10335	n-Propylbenzene	103-65-1	1 U	1	5	1
10335	Styrene	100-42-5	1 U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5 U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5 U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5 U	0.5	1	1
10335	Tetrahydrofuran	109-99-9	4 U	4	10	1
10335	Toluene	108-88-3	0.5 U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5 U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5 U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5 U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5 U	0.5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5	1
10335	Vinyl Chloride	75-01-4	0.5 U	0.5	1	1
10335	m+p-Xylene	179601-23-1	0.5 U	0.5	1	1
10335	o-Xylene	95-47-6	0.5 U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5 U	0.5	1	1

The NJ DKQP analyte list requirement was not met for Method 8260B. The client specified list is reported.

The NJ DKQP required reporting limit could not be attained for 1,2-Dibromoethane.

GC/MS Volatiles	SW-846 8260FRN Modified	ug/l	ug/l	ug/l	
13066	Chlorodifluoroethane	75-68-3	1 UZ	1	5
13066	Chlorodifluoromethane	75-45-6	2 U	2	5
13066	Chlorofluoromethane	593-70-4	1 U	1	5
13066	Chloropentafluoroethane	76-15-3	15 U	15	50
13066	1,1-Dichloro-1-fluoroethane	1717-00-6	1 U	1	5
13066	1,2-Dichloro-1-fluoroethane	430-57-9	1 U	1	5
13066	Dichlorotetrafluoroethane	76-14-2	2 U	2	5
13066	1,2-Dichlorotrifluoroethane	354-23-4	1 U	1	5
13066	Dichlorotrifluoroethane	306-83-2	1 U	1	5
13066	Fluoromethane	593-53-3	3 U	3	10
13066	Freon 113a	354-58-5	5 U	5	20
13066	1,1,2-Trifluoroethane	430-66-0	2 U	2	5
13066	Vinyl fluoride	75-02-5	2 U	2	10

Z= The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the response is high indicating increased

\*=This limit was used in the evaluation of the final result

**Sample Description:** CWKDERIVER3-TBLK-4 Blank Water  
DE RIVER NAPL DELINEATION PHASE III

CRG-The Chemours Co. FC, LLC  
ELLE Sample #: WW 9300736  
ELLE Group #: 1871371  
Matrix: Blank Water

**Project Name:** CWK - DE RIVER NAPL DELINEATION PHASE III

Submittal Date/Time: 11/04/2017 13:40  
Collection Date/Time: 11/04/2017 08:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
sensitivity, and the target analyte(s) is not detected in the sample, the data is reported.						

**00884 Volatile Library Search - 15**

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined at the end of the report.

**Sample Comments**

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

**Laboratory Sample Analysis Record**

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL Volatiles + Add'l Cmpds	SW-846 8260B	1	Y173182AA	11/14/2017 23:11	Don V Viray	1
13066	Freons	SW-846 8260FRN Modified	1	J173111AA	11/07/2017 17:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y173182AA	11/14/2017 23:11	Don V Viray	1

\*=This limit was used in the evaluation of the final result

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1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.	_____	
Contract:	B21T4	
Lab Name: Lancaster Laboratories	Case No.:	SDG No.:
Lab Code: LANCAS	SAS No.:	
Matrix: (soil/water) WATER	Lab Sample ID: 9300736	
Sample wt/vol: 5.0 (g/mL) mL	Lab File ID: HP09355.i/17nov14b.b/yn14s48.d	
Level: (low/med) LOW	Date Received: 11/04/17	
% Moisture: not dec.	Date Analyzed: 11/14/17	
Column: (pack/cap) CAP	Dilution Factor: 1.0	
Number TICs found: 0	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. VOCTIC	Total VOC TICs		0	U
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FORM I VOA-TIC

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Batch number: J173171AA			
Chlorodifluoroethane	1 U	1	5
Chlorodifluoromethane	2 U	2	5
Chlorofluoromethane	1 U	1	5
Chloropentafluoroethane	15 U	15	50
1,1-Dichloro-1-fluoroethane	1 U	1	5
1,2-Dichloro-1-fluoroethane	1 U	1	5
Dichlorotetrafluoroethane	2 U	2	5
1,2-Dichlorotrifluoroethane	1 U	1	5
Dichlorotrifluoroethane	1 U	1	5
Fluoromethane	3 U	3	10
Freon 113a	5 U	5	20
1,1,2-Trifluoroethane	2 U	2	5
Vinyl fluoride	6 U	6	20
Batch number: J173181AA			
Chlorodifluoroethane	1 U	1	5
Chlorodifluoromethane	2 U	2	5
Chlorofluoromethane	1 U	1	5
Chloropentafluoroethane	15 U	15	50
1,1-Dichloro-1-fluoroethane	1 U	1	5
1,2-Dichloro-1-fluoroethane	1 U	1	5
Dichlorotetrafluoroethane	2 U	2	5
1,2-Dichlorotrifluoroethane	1 U	1	5
Dichlorotrifluoroethane	1 U	1	5
Fluoromethane	3 U	3	10
Freon 113a	5 U	5	20
1,1,2-Trifluoroethane	2 U	2	5
Vinyl fluoride	6 U	6	20
Batch number: Q173192AA			
Chlorobenzene	50 U	50	250
Batch number: R173171AA			
Acetone	350 U	350	1,000
Benzene	25 U	25	250
Bromodichloromethane	50 U	50	250
2-Butanone	200 U	200	500
n-Butylbenzene	50 U	50	250
sec-Butylbenzene	50 U	50	250
tert-Butylbenzene	50 U	50	250

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result		MDL**	LOQ
	ug/kg	ug/kg		
Carbon Disulfide	50	U	50	250
Carbon Tetrachloride	50	U	50	250
Chlorobenzene	50	U	50	250
Chloroethane	100	U	100	250
Chloroform	50	U	50	250
Chloromethane	100	U	100	250
2-Chlorotoluene	50	U	50	250
4-Chlorotoluene	50	U	50	250
Chlorotrifluoroethene	100	U	100	250
Dibromochloromethane	50	U	50	250
1,2-Dibromoethane	50	U	50	250
1,2-Dichlorobenzene	50	U	50	250
1,3-Dichlorobenzene	50	U	50	250
1,4-Dichlorobenzene	50	U	50	250
Dichlorodifluoromethane	100	U	100	250
1,1-Dichloroethane	50	U	50	250
1,2-Dichloroethane	50	U	50	250
1,1-Dichloroethene	50	U	50	250
cis-1,2-Dichloroethene	50	U	50	250
trans-1,2-Dichloroethene	50	U	50	250
1,2-Dichloroethene (Total)	50	U	50	250
Dichlorofluoromethane	100	U	100	250
1,2-Dichloropropane	50	U	50	250
1,1-Dichloropropene	50	U	50	250
cis-1,3-Dichloropropene	50	U	50	250
Ethylbenzene	50	U	50	250
Freon 113	100	U	100	500
Freon 133a	100	U	100	250
n-Hexane	50	U	50	250
2-Hexanone	150	U	150	500
Isobutyl Alcohol	5,000	U	5,000	13,000
Isopropylbenzene	50	U	50	250
p-Isopropyltoluene	50	U	50	250
Methacrylonitrile	250	U	250	2,500
Methyl Methacrylate	50	U	50	250
Methyl Tertiary Butyl Ether	25	U	25	250
4-Methyl-2-pentanone	150	U	150	500
Methylene Chloride	100	U	100	250
Propionitrile	1,500	U	1,500	5,000
n-Propylbenzene	50	U	50	250
Styrene	50	U	50	250
1,1,1,2-Tetrachloroethane	50	U	50	250
1,1,2,2-Tetrachloroethane	50	U	50	250
Tetrachloroethene	50	U	50	250
Tetrahydrofuran	200	U	200	400

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result		MDL**	LOQ
	ug/kg	ug/kg		
Toluene	50	U	50	250
1,1,1-Trichloroethane	50	U	50	250
1,1,2-Trichloroethane	50	U	50	250
Trichloroethene	50	U	50	250
Trichlorofluoromethane	100	U	100	250
1,2,4-Trimethylbenzene	50	U	50	250
1,3,5-Trimethylbenzene	50	U	50	250
Vinyl Chloride	50	U	50	250
m+p-Xylene	50	U	50	250
o-Xylene	50	U	50	250
Xylene (Total)	50	U	50	250
Batch number: X173182AA	Sample number(s): 9300726-9300728,9300733			
Acetone	7	U	7	20
Benzene	0.5	U	0.5	5
Bromodichloromethane	1	U	1	5
2-Butanone	4	U	4	10
n-Butylbenzene	1	U	1	5
sec-Butylbenzene	1	U	1	5
tert-Butylbenzene	1	U	1	5
Carbon Disulfide	1	U	1	5
Carbon Tetrachloride	1	U	1	5
Chlorobenzene	1	U	1	5
Chloroethane	2	U	2	5
Chloroform	1	U	1	5
Chloromethane	2	U	2	5
2-Chlorotoluene	1	U	1	5
4-Chlorotoluene	1	U	1	5
Chlorotrifluoroethene	2	U	2	5
Dibromochloromethane	1	U	1	5
1,2-Dibromoethane	1	U	1	5
1,2-Dichlorobenzene	1	U	1	5
1,3-Dichlorobenzene	1	U	1	5
1,4-Dichlorobenzene	1	U	1	5
Dichlorodifluoromethane	2	U	2	5
1,1-Dichloroethane	1	U	1	5
1,2-Dichloroethane	1	U	1	5
1,1-Dichloroethene	1	U	1	5
cis-1,2-Dichloroethene	1	U	1	5
trans-1,2-Dichloroethene	1	U	1	5
1,2-Dichloroethene (Total)	1	U	1	5
Dichlorofluoromethane	2	U	2	5
1,2-Dichloropropane	1	U	1	5
1,1-Dichloropropene	1	U	1	5
cis-1,3-Dichloropropene	1	U	1	5

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result ug/kg	MDL**	LOQ
		ug/kg	ug/kg
Ethylbenzene	1 U	1	5
Freon 113	2 U	2	10
Freon 133a	2 U	2	5
n-Hexane	1 U	1	5
2-Hexanone	3 U	3	10
Isobutyl Alcohol	100 U	100	250
Isopropylbenzene	1 U	1	5
p-Isopropyltoluene	1 U	1	5
Methacrylonitrile	5 U	5	50
Methyl Methacrylate	1 U	1	5
Methyl Tertiary Butyl Ether	0.5 U	0.5	5
4-Methyl-2-pentanone	3 U	3	10
Methylene Chloride	2 U	2	5
Propionitrile	30 U	30	100
n-Propylbenzene	1 U	1	5
Styrene	1 U	1	5
1,1,1,2-Tetrachloroethane	1 U	1	5
1,1,2,2-Tetrachloroethane	1 U	1	5
Tetrachloroethene	1 U	1	5
Tetrahydrofuran	4 U	4	8
Toluene	1 U	1	5
1,1,1-Trichloroethane	1 U	1	5
1,1,2-Trichloroethane	1 U	1	5
Trichloroethene	1 U	1	5
Trichlorofluoromethane	2 U	2	5
1,2,4-Trimethylbenzene	1 U	1	5
1,3,5-Trimethylbenzene	1 U	1	5
Vinyl Chloride	1 U	1	5
m+p-Xylene	1 U	1	5
o-Xylene	1 U	1	5
Xylene (Total)	1 U	1	5
Batch number: J173111AA	Sample number(s): 9300735-9300736		
Chlorodifluoroethane	1 U	1	5
Chlorodifluoromethane	2 U	2	5
Chlorofluoromethane	1 U	1	5
Chloropentafluoroethane	15 U	15	50
1,1-Dichloro-1-fluoroethane	1 U	1	5
1,2-Dichloro-1-fluoroethane	1 U	1	5
Dichlorotetrafluoroethane	2 U	2	5
1,2-Dichlorotrifluoroethane	1 U	1	5
Dichlorotrifluoroethane	1 U	1	5
Fluoromethane	3 U	3	10
Freon 113a	5 U	5	20

\*- Outside of specification

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result ug/l	MDL** ug/l	LOQ ug/l
1,1,2-Trifluoroethane	2 U	2	5
Vinyl fluoride	2 U	2	10
Batch number: Y173182AA			Sample number(s): 9300735-9300736
Acetone	6 U	6	20
Benzene	0.5 U	0.5	1
Bromodichloromethane	0.5 U	0.5	1
2-Butanone	3 U	3	10
n-Butylbenzene	1 U	1	5
sec-Butylbenzene	1 U	1	5
tert-Butylbenzene	1 U	1	5
Carbon Disulfide	1 U	1	5
Carbon Tetrachloride	0.5 U	0.5	1
Chlorobenzene	0.5 U	0.5	1
Chloroethane	0.5 U	0.5	1
Chloroform	0.5 U	0.5	1
Chloromethane	0.5 U	0.5	1
2-Chlorotoluene	1 U	1	5
4-Chlorotoluene	1 U	1	5
Chlorotrifluoroethene	2 U	2	5
Dibromochloromethane	0.5 U	0.5	1
1,2-Dibromoethane	0.5 U	0.5	1
1,2-Dichlorobenzene	1 U	1	5
1,3-Dichlorobenzene	1 U	1	5
1,4-Dichlorobenzene	1 U	1	5
Dichlorodifluoromethane	0.5 U	0.5	1
1,1-Dichloroethane	0.5 U	0.5	1
1,2-Dichloroethane	0.5 U	0.5	1
1,1-Dichloroethene	0.5 U	0.5	1
cis-1,2-Dichloroethene	0.5 U	0.5	1
trans-1,2-Dichloroethene	0.5 U	0.5	1
1,2-Dichloroethene (Total)	0.5 U	0.5	1
Dichlorofluoromethane	0.5 U	0.5	1
1,2-Dichloropropane	0.5 U	0.5	1
1,1-Dichloropropene	1 U	1	5
cis-1,3-Dichloropropene	0.5 U	0.5	1
Ethylbenzene	0.5 U	0.5	1
Freon 113	2 U	2	10
Freon 133a	2 U	2	5
n-Hexane	2 U	2	5
2-Hexanone	3 U	3	10
Isobutyl Alcohol	100 U	100	250
Isopropylbenzene	1 U	1	5
p-Isopropyltoluene	1 U	1	5
Methacrylonitrile	10 U	10	50

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result ug/l	MDL**	LOQ
		ug/l	ug/l
Methyl Methacrylate	1 U	1	5
Methyl Tertiary Butyl Ether	0.5 U	0.5	1
4-Methyl-2-pentanone	3 U	3	10
Methylene Chloride	0.5 U	0.5	1
Propionitrile	30 U	30	100
n-Propylbenzene	1 U	1	5
Styrene	1 U	1	5
1,1,1,2-Tetrachloroethane	0.5 U	0.5	1
1,1,2,2-Tetrachloroethane	0.5 U	0.5	1
Tetrachloroethene	0.5 U	0.5	1
Tetrahydrofuran	4 U	4	10
Toluene	0.5 U	0.5	1
1,1,1-Trichloroethane	0.5 U	0.5	1
1,1,2-Trichloroethane	0.5 U	0.5	1
Trichloroethene	0.5 U	0.5	1
Trichlorofluoromethane	0.5 U	0.5	1
1,2,4-Trimethylbenzene	1 U	1	5
1,3,5-Trimethylbenzene	1 U	1	5
Vinyl Chloride	0.5 U	0.5	1
m+p-Xylene	0.5 U	0.5	1
o-Xylene	0.5 U	0.5	1
Xylene (Total)	0.5 U	0.5	1
Batch number: 17314SLE026	Sample number(s): 9300726-9300731,9300733-9300734		
Acenaphthene	3 U	3	17
Acenaphthylene	3 U	3	17
Acetophenone	17 U	17	33
4-Aminobiphenyl	170 U	170	500
Aniline	170 U	170	500
Anthracene	3 U	3	17
Benzidine	250 U	250	500
Benzo(a)anthracene	3 U	3	17
Benzo(a)pyrene	3 U	3	17
Benzo(b)fluoranthene	3 U	3	17
Benzo(g,h,i)perylene	3 U	3	17
Benzo(k)fluoranthene	3 U	3	17
1,1'-Biphenyl	17 U	17	33
4-Bromophenyl-phenylether	17 U	17	33
Butylbenzylphthalate	67 U	67	170
Di-n-butylphthalate	67 U	67	170
Carbazole	17 U	17	33
4-Chloro-3-methylphenol	17 U	17	33
4-Chloroaniline	33 U	33	67
bis(2-Chloroethoxy)methane	17 U	17	33

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC

Group Number: 1871371

Reported: 12/14/2017 15:40

### Method Blank (continued)

Analysis Name	Result ug/kg	MDL** ug/kg	LOQ ug/kg
bis(2-Chloroethyl)ether	17 U	17	33
2-Chloronaphthalene	7 U	7	33
2-Chlorophenol	17 U	17	33
4-Chlorophenyl-phenylether	17 U	17	33
2,2'-oxybis(1-Chloropropane)	17 U	17	33
Chrysene	3 U	3	17
Dibenz(a,h)anthracene	3 U	3	17
Dibenzofuran	17 U	17	33
3,3'-Dichlorobenzidine	100 U	100	330
2,4-Dichlorophenol	17 U	17	33
Diethylphthalate	67 U	67	170
2,4-Dimethylphenol	17 U	17	33
Dimethylphthalate	67 U	67	170
4,6-Dinitro-2-methylphenol	170 U	170	500
2,4-Dinitrophenol	300 U	300	1,000
2,4-Dinitrotoluene	67 U	67	170
2,6-Dinitrotoluene	17 U	17	33
1,4-Dioxane	100 U	100	330
Diphenyl ether	17 U	17	33
1,2-Diphenylhydrazine	17 U	17	33
bis(2-Ethylhexyl)phthalate	67 U	67	170
Fluoranthene	3 U	3	17
Fluorene	3 U	3	17
Hexachlorobenzene	3 U	3	17
Hexachlorobutadiene	17 U	17	33
Hexachlorocyclopentadiene	170 U	170	500
Hexachloroethane	33 U	33	170
Indeno(1,2,3-cd)pyrene	3 U	3	17
Isophorone	17 U	17	33
2-Methylnaphthalene	3 U	3	17
2-Methylphenol	17 U	17	33
4-Methylphenol	17 U	17	33
Naphthalene	3 U	3	17
1-Naphthylamine	170 U	170	500
2-Naphthylamine	170 U	170	500
2-Nitroaniline	17 U	17	33
3-Nitroaniline	67 U	67	170
4-Nitroaniline	67 U	67	170
Nitrobenzene	17 U	17	33
2-Nitrophenol	17 U	17	33
4-Nitrophenol	170 U	170	500
N-Nitrosodimethylamine	67 U	67	170
N-Nitroso-di-n-propylamine	17 U	17	33
N-Nitrosodiphenylamine	17 U	17	33
Di-n-octylphthalate	67 U	67	170

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result ug/kg	MDL**	LOQ
		ug/kg	ug/kg
Parathion	170 U	170	500
Pentachlorobenzene	17 U	17	33
Pentachlorophenol	33 U	33	170
Phenanthrene	3 U	3	17
Phenol	17 U	17	33
Pyrene	3 U	3	17
2,3,4,6-Tetrachlorophenol	67 U	67	170
o-Toluidine	200 U	200	670
1,2,4-Trichlorobenzene	17 U	17	33
2,4,5-Trichlorophenol	17 U	17	33
2,4,6-Trichlorophenol	17 U	17	33
		ug/l	ug/l
Batch number: 17310WAE026	Sample number(s): 9300735		
Acenaphthene	0.1 U	0.1	0.5
Acenaphthylene	0.1 U	0.1	0.5
Acetophenone	0.5 U	0.5	1
4-Aminobiphenyl	0.5 U	0.5	1
Aniline	0.5 U	0.5	1
Anthracene	0.1 U	0.1	0.5
Benzidine	20 U	20	60
Benzo(a)anthracene	0.1 U	0.1	0.5
Benzo(a)pyrene	0.1 U	0.1	0.5
Benzo(b)fluoranthene	0.1 U	0.1	0.5
Benzo(g,h,i)perylene	0.1 U	0.1	0.5
Benzo(k)fluoranthene	0.1 U	0.1	0.5
1,1'-Biphenyl	0.5 U	0.5	1
4-Bromophenyl-phenylether	0.5 U	0.5	1
Butylbenzylphthalate	2 U	2	5
Di-n-butylphthalate	2 U	2	5
Carbazole	0.5 U	0.5	1
4-Chloro-3-methylphenol	0.5 U	0.5	1
4-Chloroaniline	2 U	2	4
bis(2-Chloroethoxy)methane	0.5 U	0.5	1
bis(2-Chloroethyl)ether	0.5 U	0.5	1
2-Chloronaphthalene	0.4 U	0.4	1
2-Chlorophenol	0.5 U	0.5	1
4-Chlorophenyl-phenylether	0.5 U	0.5	1
2,2'-oxybis(1-Chloropropane)	0.5 U	0.5	1
Chrysene	0.1 U	0.1	0.5
Dibenz(a,h)anthracene	0.1 U	0.1	0.5
Dibenzofuran	0.5 U	0.5	1
3,3'-Dichlorobenzidine	2 U	2	5
2,4-Dichlorophenol	0.5 U	0.5	1
Diethylphthalate	2 U	2	5

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**Quality Control Summary**Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

**Method Blank (continued)**

Analysis Name	Result ug/l	MDL** ug/l	LOQ ug/l
2,4-Dimethylphenol	0.5 U	0.5	1
Dimethylphthalate	2 U	2	5
4,6-Dinitro-2-methylphenol	5 U	5	15
2,4-Dinitrophenol	10 U	10	30
2,4-Dinitrotoluene	1 U	1	5
2,6-Dinitrotoluene	0.5 U	0.5	1
1,4-Dioxane	1 U	1	5
Diphenyl ether	0.5 U	0.5	1
1,2-Diphenylhydrazine	0.5 U	0.5	1
bis(2-Ethylhexyl)phthalate	2 U	2	5
Fluoranthene	0.1 U	0.1	0.5
Fluorene	0.1 U	0.1	0.5
Hexachlorobenzene	0.1 U	0.1	0.5
Hexachlorobutadiene	0.5 U	0.5	1
Hexachlorocyclopentadiene	5 U	5	15
Hexachloroethane	1 U	1	5
Indeno(1,2,3-cd)pyrene	0.1 U	0.1	0.5
Isophorone	0.5 U	0.5	1
2-Methylnaphthalene	0.1 U	0.1	0.5
2-Methylphenol	0.5 U	0.5	1
4-Methylphenol	0.5 U	0.5	1
Naphthalene	0.1 U	0.1	0.5
1-Naphthylamine	5 U	5	15
2-Naphthylamine	5 U	5	15
2-Nitroaniline	0.5 U	0.5	1
3-Nitroaniline	0.5 U	0.5	1
4-Nitroaniline	0.5 U	0.5	1
Nitrobenzene	0.5 U	0.5	1
2-Nitrophenol	0.5 U	0.5	1
4-Nitrophenol	10 U	10	30
N-Nitrosodimethylamine	2 U	2	5
N-Nitroso-di-n-propylamine	0.5 U	0.5	1
N-Nitrosodiphenylamine	0.5 U	0.5	1
Di-n-octylphthalate	2 U	2	5
Parathion	2 U	2	5
Pentachlorobenzene	0.5 U	0.5	1
Pentachlorophenol	1 U	1	5
Phenanthrene	0.1 U	0.1	0.5
Phenol	0.5 U	0.5	1
Pyrene	0.1 U	0.1	0.5
2,3,4,6-Tetrachlorophenol	0.5 U	0.5	1
o-Toluidine	0.5 U	0.5	1
1,2,4-Trichlorobenzene	0.5 U	0.5	1
2,4,5-Trichlorophenol	0.5 U	0.5	1
2,4,6-Trichlorophenol	0.5 U	0.5	1

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
	mg/kg	mg/kg	mg/kg
Batch number: 173100570805	Sample number(s): 9300726-9300727		
Aluminum	16.0 J	8.94	20.0
Calcium	3.33 U	3.33	20.0
Iron	8.05 U	8.05	20.0
Magnesium	2.43 U	2.43	10.0
Potassium	16.7 U	16.7	50.0
Sodium	30.1 J	16.7	100
Zinc	0.240 U	0.240	2.00
Batch number: 173100570805A	Sample number(s): 9300726-9300727		
Antimony	0.0932 U	0.0932	0.200
Arsenic	0.128 U	0.128	0.400
Beryllium	0.0105 U	0.0105	0.100
Cadmium	0.0344 U	0.0344	0.100
Chromium	0.174 U	0.174	0.400
Cobalt	0.0312 U	0.0312	0.100
Copper	0.107 U	0.107	0.400
Lead	0.0222 U	0.0222	0.200
Manganese	0.181 U	0.181	0.400
Nickel	0.199 U	0.199	0.400
Silver	0.0292 U	0.0292	0.100
Thallium	0.0250 U	0.0250	0.100
Vanadium	0.0426 U	0.0426	0.100
Batch number: 173100570805B	Sample number(s): 9300726-9300727		
Selenium	0.100 U	0.100	0.400
Batch number: 173100570805D	Sample number(s): 9300726-9300727		
Barium	0.182 U	0.182	0.400
Batch number: 173100571106	Sample number(s): 9300726-9300727		
Mercury	0.0100 U	0.0100	0.100
	mg/l	mg/l	mg/l
Batch number: 173100570504	Sample number(s): 9300735		
Aluminum	0.0894 U	0.0894	0.200
Calcium	0.0600 U	0.0600	0.200
Iron	0.0805 U	0.0805	0.200
Magnesium	0.0374 U	0.0374	0.100
Potassium	0.179 U	0.179	0.500
Sodium	0.321 U	0.321	1.00
Zinc	0.0065 U	0.0065	0.0200
Batch number: 173100571312	Sample number(s): 9300735		
Mercury	0.000050 U	0.000050	0.000020

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Method Blank (continued)

Analysis Name	Result mg/l	MDL**	LOQ
		mg/l	mg/l
Batch number: 173100605001A	Sample number(s): 9300735		
Antimony	0.00045 U	0.00045	0.0010
Arsenic	0.00072 U	0.00072	0.0020
Beryllium	0.000071 U	0.000071	0.000050
Cadmium	0.00015 U	0.00015	0.000050
Chromium	0.00087 U	0.00087	0.0020
Cobalt	0.00016 U	0.00016	0.000050
Copper	0.00054 U	0.00054	0.0020
Lead	0.00011 U	0.00011	0.0010
Manganese	0.0011 J	0.00090	0.0020
Silver	0.00015 U	0.00015	0.000050
Thallium	0.00012 U	0.00012	0.000050
Vanadium	0.00021 U	0.00021	0.000050
Batch number: 173100605001B	Sample number(s): 9300735		
Selenium	0.00050 U	0.00050	0.0020
Batch number: 173100605001D	Sample number(s): 9300735		
Barium	0.00072 U	0.00072	0.0020
Batch number: 173200605002A	Sample number(s): 9300735		
Nickel	0.0010 U	0.0010	0.0020
mg/kg			
Batch number: 17317667633B	Sample number(s): 9300726-9300728,9300733-9300734		
Total Organic Carbon (TOC)	100 U	100	300
Batch number: 17320667631A	Sample number(s): 9300729-9300732		
Total Organic Carbon (TOC)	100 U	100	300
mg/l			
Batch number: 17317667604A	Sample number(s): 9300735		
Total Organic Carbon (Quad)	0.50 U	0.50	1.0

### LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: J173171AA	Sample number(s): 9300726-9300728								
Chlorodifluoroethane	20	19.12	20	17.21	96	86	70-130	11	30
Chlorodifluoromethane	20	18.97	20	17.07	95	85	70-130	11	30
Chlorofluoromethane	20	17.93	20	16.92	90	85	70-130	6	30
Chloropentafluoroethane	250	266.68	250	252.08	107	101	70-130	6	30

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloro-1-fluoroethane	20	18.48	20	16.12	92	81	70-130	14	30
1,2-Dichloro-1-fluoroethane	20	19.29	20	18.77	96	94	70-130	3	30
Dichlorotetrafluoroethane	20	18.3	20	17.58	91	88	70-130	4	30
1,2-Dichlorotrifluoroethane	20	18.78	20	17.35	94	87	70-130	8	30
Dichlorotrifluoroethane	20	19.3	20	18.07	96	90	70-130	7	30
Fluoromethane	25	36.56	25	33.28	146*	133*	70-130	9	30
Freon 113a	20	19.64	20	17.69	98	88	70-130	10	30
1,1,2-Trifluoroethane	20	16.88	20	16.31	84	82	70-130	3	30
Vinyl fluoride	100	93.47	100	82.83	93	83	70-130	12	30
Batch number: J173181AA	Sample number(s): 9300729-9300731,9300733-9300734								
Chlorodifluoroethane	20	23.81	20	22.1	119	111	70-130	7	30
Chlorodifluoromethane	20	21.07	20	20.22	105	101	70-130	4	30
Chlorofluoromethane	20	19.38	20	19.18	97	96	70-130	1	30
Chloropentafluoroethane	250	246.07	250	248.11	98	99	70-130	1	30
1,1-Dichloro-1-fluoroethane	20	21.18	20	20.23	106	101	70-130	5	30
1,2-Dichloro-1-fluoroethane	20	20.36	20	19.42	102	97	70-130	5	30
Dichlorotetrafluoroethane	20	18.58	20	18.46	93	92	70-130	1	30
1,2-Dichlorotrifluoroethane	20	20.12	20	19.09	101	95	70-130	5	30
Dichlorotrifluoroethane	20	20.42	20	19.4	102	97	70-130	5	30
Fluoromethane	25	43.03	25	40.79	172*	163*	70-130	5	30
Freon 113a	20	18.77	20	17.95	94	90	70-130	4	30
1,1,2-Trifluoroethane	20	19.23	20	19.35	96	97	70-130	1	30
Vinyl fluoride	100	107.28	100	111.08	107	111	70-130	3	30
Batch number: Q173192AA	Sample number(s): 9300733								
Chlorobenzene	1000	978.42	1000	976.36	98	98	70-130	0	30
Batch number: R173171AA	Sample number(s): 9300729-9300731,9300734								
Acetone	7500	7528.82	7500	6998.66	100	93	60-140	7	30
Benzene	1000	1039.49	1000	1015.28	104	102	70-130	2	30
Bromodichloromethane	1000	978.05	1000	1012.53	98	101	70-130	3	30
2-Butanone	7500	5661.83	7500	5746.68	75	77	60-140	1	30
n-Butylbenzene	1000	908.8	1000	932.62	91	93	70-130	3	30
sec-Butylbenzene	1000	893.32	1000	932.78	89	93	70-130	4	30
tert-Butylbenzene	1000	881.2	1000	894.62	88	89	70-130	2	30
Carbon Disulfide	1000	1033.05	1000	996.24	103	100	60-140	4	30
Carbon Tetrachloride	1000	1033.27	1000	1011.09	103	101	70-130	2	30
Chlorobenzene	1000	932.86	1000	945.95	93	95	70-130	1	30
Chloroethane	1000	756.02	1000	820.53	76	82	60-140	8	30
Chloroform	1000	1026.79	1000	1005.17	103	101	70-130	2	30
Chloromethane	1000	958.23	1000	902.58	96	90	60-140	6	30
2-Chlorotoluene	1000	876.93	1000	904.76	88	90	70-130	3	30
4-Chlorotoluene	1000	890.68	1000	877.17	89	88	70-130	2	30
Chlorotrifluoroethene	1000	642.31	1000	797.69	64*	80	70-130	22	30

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dibromochloromethane	1000	919.02	1000	912.71	92	91	70-130	1	30
1,2-Dibromoethane	1000	937.68	1000	915.23	94	92	70-130	2	30
1,2-Dichlorobenzene	1000	915.74	1000	927.86	92	93	70-130	1	30
1,3-Dichlorobenzene	1000	898.04	1000	946.22	90	95	70-130	5	30
1,4-Dichlorobenzene	1000	915.29	1000	945.24	92	95	70-130	3	30
Dichlorodifluoromethane	1000	894.68	1000	893.31	89	89	60-140	0	30
1,1-Dichloroethane	1000	1056.42	1000	1026.14	106	103	70-130	3	30
1,2-Dichloroethane	1000	1044.77	1000	1018.49	104	102	70-130	3	30
1,1-Dichloroethene	1000	1136.71	1000	1057.69	114	106	70-130	7	30
cis-1,2-Dichloroethene	1000	1098.9	1000	1054.75	110	105	70-130	4	30
trans-1,2-Dichloroethene	1000	1102.95	1000	1049.89	110	105	70-130	5	30
1,2-Dichloroethene (Total)	2000	2201.86	2000	2104.64	110	105	70-130	5	30
Dichlorofluoromethane	1000	904.81	1000	884.03	90	88	70-130	2	30
1,2-Dichloropropane	1000	1035.26	1000	1049.12	104	105	70-130	1	30
1,1-Dichloropropene	1000	1035.18	1000	1002.88	104	100	70-130	3	30
cis-1,3-Dichloropropene	1000	1032.84	1000	1029.02	103	103	70-130	0	30
Ethylbenzene	1000	911.77	1000	906.56	91	91	70-130	1	30
Freon 113	1000	1115.81	1000	950.39	112	95	70-130	16	30
Freon 133a	1000	917.98	1000	1040.42	92	104	70-130	13	30
n-Hexane	1000	1027.49	1000	986.72	103	99	70-130	4	30
2-Hexanone	5000	4371.84	5000	4291.63	87	86	60-140	2	30
Isobutyl Alcohol	25000	20679.53	25000	22151.5	83	89	70-130	7	30
Isopropylbenzene	1000	916.44	1000	907.59	92	91	70-130	1	30
p-Isopropyltoluene	1000	914.08	1000	953.13	91	95	70-130	4	30
Methacrylonitrile	7500	7693.52	7500	7489.69	103	100	70-130	3	30
Methyl Methacrylate	1000	953.01	1000	967.8	95	97	70-130	2	30
Methyl Tertiary Butyl Ether	1000	1035.78	1000	987.67	104	99	70-130	5	30
4-Methyl-2-pentanone	5000	4949.83	5000	4871.99	99	97	60-140	2	30
Methylene Chloride	1000	1049.51	1000	1029.09	105	103	70-130	2	30
Propionitrile	7500	8129.62	7500	7754.42	108	103	70-130	5	30
n-Propylbenzene	1000	856.2	1000	880.83	86	88	70-130	3	30
Styrene	1000	886.55	1000	885.82	89	89	70-130	0	30
1,1,1,2-Tetrachloroethane	1000	919.62	1000	931.52	92	93	70-130	1	30
1,1,2,2-Tetrachloroethane	1000	897.15	1000	879.96	90	88	70-130	2	30
Tetrachloroethene	1000	952.23	1000	930.01	95	93	70-130	2	30
Tetrahydrofuran	5000	4188.85	5000	4099.4	84	82	70-130	2	30
Toluene	1000	977.27	1000	946.34	98	95	70-130	3	30
1,1,1-Trichloroethane	1000	1034.5	1000	1011.72	103	101	70-130	2	30
1,1,2-Trichloroethane	1000	970.08	1000	957.77	97	96	70-130	1	30
Trichloroethene	1000	997.94	1000	1012.16	100	101	70-130	1	30
Trichlorofluoromethane	1000	920.6	1000	835.88	92	84	60-140	10	30
1,2,4-Trimethylbenzene	1000	862.74	1000	894.88	86	89	70-130	4	30
1,3,5-Trimethylbenzene	1000	879.88	1000	890.94	88	89	70-130	1	30
Vinyl Chloride	1000	957.2	1000	911.74	96	91	70-130	5	30

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
m-p-Xylene	2000	1902.93	2000	1886.01	95	94	70-130	1	30
o-Xylene	1000	905.76	1000	915.07	91	92	70-130	1	30
Xylene (Total)	3000	2808.69	3000	2801.08	94	93	70-130	0	30
Batch number: X173182AA	Sample number(s): 9300726-9300728,9300733								
Acetone	150	156.19	150	162.5	104	108	60-140	4	30
Benzene	20	20.21	20	20.12	101	101	70-130	0	30
Bromodichloromethane	20	18.53	20	18.5	93	92	70-130	0	30
2-Butanone	150	146.79	150	154.85	98	103	60-140	5	30
n-Butylbenzene	20	17.09	20	17.22	85	86	70-130	1	30
sec-Butylbenzene	20	16.48	20	16.7	82	83	70-130	1	30
tert-Butylbenzene	20	15.27	20	15.53	76	78	70-130	2	30
Carbon Disulfide	20	18.82	20	18.6	94	93	60-140	1	30
Carbon Tetrachloride	20	19.68	20	19.64	98	98	70-130	0	30
Chlorobenzene	20	18.7	20	18.33	94	92	70-130	2	30
Chloroethane	20	18.94	20	19.33	95	97	60-140	2	30
Chloroform	20	20.03	20	20.01	100	100	70-130	0	30
Chloromethane	20	20.2	20	20.88	101	104	60-140	3	30
2-Chlorotoluene	20	16.29	20	16.54	81	83	70-130	2	30
4-Chlorotoluene	20	16.95	20	17.01	85	85	70-130	0	30
Chlorotrifluoroethylene	20	18.39	20	18.03	92	90	70-130	2	30
Dibromochloromethane	20	16.27	20	16.15	81	81	70-130	1	30
1,2-Dibromoethane	20	16.27	20	16.65	81	83	70-130	2	30
1,2-Dichlorobenzene	20	17.2	20	17.34	86	87	70-130	1	30
1,3-Dichlorobenzene	20	17.05	20	17.29	85	86	70-130	1	30
1,4-Dichlorobenzene	20	17.73	20	17.71	89	89	70-130	0	30
Dichlorodifluoromethane	20	20.83	20	20.93	104	105	60-140	0	30
1,1-Dichloroethane	20	19.6	20	19.75	98	99	70-130	1	30
1,2-Dichloroethane	20	20.36	20	20.16	102	101	70-130	1	30
1,1-Dichloroethene	20	19.93	20	20.16	100	101	70-130	1	30
cis-1,2-Dichloroethene	20	19.68	20	19.89	98	99	70-130	1	30
trans-1,2-Dichloroethene	20	19.88	20	19.76	99	99	70-130	1	30
1,2-Dichloroethene (Total)	40	39.56	40	39.65	99	99	70-130	0	30
Dichlorofluoromethane	20	23.21	20	23.21	116	116	70-130	0	30
1,2-Dichloropropane	20	21.15	20	21.03	106	105	70-130	1	30
1,1-Dichloropropene	20	18.8	20	18.91	94	95	70-130	1	30
cis-1,3-Dichloropropene	20	16.23	20	16.6	81	83	70-130	2	30
Ethylbenzene	20	17.91	20	17.79	90	89	70-130	1	30
Freon 113	20	20.83	20	20.8	104	104	70-130	0	30
Freon 133a	20	14.79	20	14.79	74	74	70-130	0	30
n-Hexane	20	18.14	20	18.47	91	92	70-130	2	30
2-Hexanone	100	87.18	100	91.64	87	92	60-140	5	30
Isobutyl Alcohol	500	633.34	500	581.5	127	116	70-130	9	30
Isopropylbenzene	20	16.9	20	16.84	84	84	70-130	0	30

\*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
p-Isopropyltoluene	20	16.79	20	17.03	84	85	70-130	1	30
Methacrylonitrile	150	152.93	150	156.81	102	105	70-130	3	30
Methyl Methacrylate	20	17.37	20	17.99	87	90	70-130	4	30
Methyl Tertiary Butyl Ether	20	14.48	20	15.43	72	77	70-130	6	30
4-Methyl-2-pentanone	100	97.88	100	102.67	98	103	60-140	5	30
Methylene Chloride	20	21.42	20	21.32	107	107	70-130	0	30
Propionitrile	150	202.57	150	182.3	135*	122	70-130	11	30
n-Propylbenzene	20	17.19	20	17.42	86	87	70-130	1	30
Styrene	20	17.89	20	17.63	89	88	70-130	1	30
1,1,1,2-Tetrachloroethane	20	17.73	20	17.48	89	87	70-130	1	30
1,1,2,2-Tetrachloroethane	20	16.22	20	16.73	81	84	70-130	3	30
Tetrachloroethene	20	18.49	20	18.08	92	90	70-130	2	30
Tetrahydrofuran	100	125.94	100	114.61	126	115	70-130	9	30
Toluene	20	18.12	20	17.88	91	89	70-130	1	30
1,1,1-Trichloroethane	20	20.06	20	19.93	100	100	70-130	1	30
1,1,2-Trichloroethane	20	18.16	20	17.82	91	89	70-130	2	30
Trichloroethene	20	19.06	20	18.89	95	94	70-130	1	30
Trichlorofluoromethane	20	22.94	20	22.93	115	115	60-140	0	30
1,2,4-Trimethylbenzene	20	16.58	20	16.71	83	84	70-130	1	30
1,3,5-Trimethylbenzene	20	16.27	20	16.5	81	82	70-130	1	30
Vinyl Chloride	20	19.72	20	20.18	99	101	70-130	2	30
m+p-Xylene	40	36.48	40	36.26	91	91	70-130	1	30
o-Xylene	20	16.31	20	16.19	82	81	70-130	1	30
Xylene (Total)	60	52.79	60	52.45	88	87	70-130	1	30
Batch number: J173111AA	Sample number(s): 9300735-9300736								
Chlorodifluoroethane	20	29.67	20	28.01	148	140	57-153	6	30
Chlorodifluoromethane	20	29.74	20	29.28	149	146	60-157	2	30
Chlorofluoromethane	20	24.56	20	24.99	123*	125*	65-120	2	30
Chloropentafluoroethane	250	336.11	250	328.68	134	131	13-171	2	30
1,1-Dichloro-1-fluoroethane	20	24.25	20	23.64	121	118	56-158	3	30
1,2-Dichloro-1-fluoroethane	20	25.6	20	25.84	128*	129*	71-120	1	30
Dichlorotetrafluoroethane	20	22.32	20	22.41	112	112	49-159	0	30
1,2-Dichlorotrifluoroethane	20	26.28	20	27.05	131*	135*	73-127	3	30
Dichlorotrifluoroethane	20	24.26	20	24.69	121*	123*	80-120	2	30
Fluoromethane	25	18.7	25	18.04	75	72	24-147	4	30
Freon 113a	20	24.63	20	25.26	123	126	60-156	3	30
1,1,2-Trifluoroethane	20	30.66	20	29.65	153*	148*	66-133	3	30
Vinyl fluoride	50	42.85	50	44.42	86	89	25-139	4	30
Batch number: Y173182AA	Sample number(s): 9300735-9300736								
Acetone	150	153.62	150	148.07	102	99	60-140	4	20
Benzene	20	20.97	20	20.86	105	104	70-130	1	20

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bromodichloromethane	20	19.97	20	19.74	100	99	70-130	1	20
2-Butanone	150	150.69	150	151.01	100	101	60-140	0	20
n-Butylbenzene	20	20.93	20	21.02	105	105	70-130	0	20
sec-Butylbenzene	20	21.56	20	21.65	108	108	70-130	0	20
tert-Butylbenzene	20	20.79	20	20.84	104	104	70-130	0	20
Carbon Disulfide	20	23.04	20	23.06	115	115	60-140	0	20
Carbon Tetrachloride	20	18.34	20	18.33	92	92	70-130	0	20
Chlorobenzene	20	20.43	20	20.41	102	102	70-130	0	20
Chloroethane	20	18.51	20	18.66	93	93	60-140	1	20
Chloroform	20	20.16	20	20.3	101	101	70-130	1	20
Chloromethane	20	17.75	20	17.91	89	90	60-140	1	20
2-Chlorotoluene	20	20.28	20	20.38	101	102	70-130	0	20
4-Chlorotoluene	20	20.17	20	20.32	101	102	70-130	1	20
Chlorotrifluoroethylene	20	14.18	20	14.51	71	73	70-130	2	20
Dibromochloromethane	20	20.31	20	19.91	102	100	70-130	2	20
1,2-Dibromoethane	20	20.8	20	20.75	104	104	70-130	0	20
1,2-Dichlorobenzene	20	20.33	20	20.33	102	102	70-130	0	20
1,3-Dichlorobenzene	20	20.42	20	20.34	102	102	70-130	0	20
1,4-Dichlorobenzene	20	20.66	20	20.63	103	103	70-130	0	20
Dichlorodifluoromethane	20	16.4	20	16.61	82	83	60-140	1	20
1,1-Dichloroethane	20	20.57	20	20.61	103	103	70-130	0	20
1,2-Dichloroethane	20	19.26	20	19.25	96	96	70-130	0	20
1,1-Dichloroethene	20	22.49	20	22.68	112	113	70-130	1	20
cis-1,2-Dichloroethene	20	21.67	20	21.45	108	107	70-130	1	20
trans-1,2-Dichloroethene	20	21.53	20	21.71	108	109	70-130	1	20
1,2-Dichloroethene (Total)	40	43.2	40	43.15	108	108	70-130	0	20
Dichlorofluoromethane	20	19.04	20	18.94	95	95	70-130	1	20
1,2-Dichloropropane	20	20.82	20	20.85	104	104	70-130	0	20
1,1-Dichloropropene	20	20.39	20	20.35	102	102	70-130	0	20
cis-1,3-Dichloropropene	20	20.33	20	20.42	102	102	70-130	0	20
Ethylbenzene	20	21.31	20	21.36	107	107	70-130	0	20
Freon 113	20	19.92	20	19.77	100	99	70-130	1	20
Freon 133a	20	16.32	20	16.57	82	83	70-130	2	20
n-Hexane	20	19.88	20	20.11	99	101	70-130	1	20
2-Hexanone	100	107.95	100	107.83	108	108	60-140	0	20
Isobutyl Alcohol	500	505.23	500	490.9	101	98	70-130	3	20
Isopropylbenzene	20	21.51	20	21.47	108	107	70-130	0	20
p-Isopropyltoluene	20	21.48	20	21.61	107	108	70-130	1	20
Methacrylonitrile	150	161.36	150	160.95	108	107	70-130	0	20
Methyl Methacrylate	20	20.75	20	20.96	104	105	70-130	1	20
Methyl Tertiary Butyl Ether	20	20.78	20	20.77	104	104	70-130	0	20
4-Methyl-2-pentanone	100	103.64	100	104.01	104	104	60-140	0	20
Methylene Chloride	20	21.3	20	21.35	106	107	70-130	0	20
Propionitrile	150	162.93	150	161.5	109	108	70-130	1	20

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/kg	ug/kg	ug/kg	ug/kg					
n-Propylbenzene	20	21.39	20	21.35	107	107	70-130	0	20
Styrene	20	22.39	20	22.41	112	112	70-130	0	20
1,1,1,2-Tetrachloroethane	20	19.58	20	19.24	98	96	70-130	2	20
1,1,2,2-Tetrachloroethane	20	20.85	20	20.95	104	105	70-130	0	20
Tetrachloroethene	20	20.44	20	20.47	102	102	70-130	0	20
Tetrahydrofuran	100	106.5	100	105.89	106	106	70-130	1	20
Toluene	20	21.35	20	21.55	107	108	70-130	1	20
1,1,1-Trichloroethane	20	19	20	19.28	95	96	70-130	1	20
1,1,2-Trichloroethane	20	21.7	20	21.36	108	107	70-130	2	20
Trichloroethene	20	20.34	20	20.37	102	102	70-130	0	20
Trichlorofluoromethane	20	18.15	20	18.18	91	91	60-140	0	20
1,2,4-Trimethylbenzene	20	21.43	20	21.62	107	108	70-130	1	20
1,3,5-Trimethylbenzene	20	21.31	20	21.35	107	107	70-130	0	20
Vinyl Chloride	20	17.97	20	18.1	90	90	70-130	1	20
m+p-Xylene	40	43.18	40	43.29	108	108	70-130	0	20
o-Xylene	20	20.94	20	20.97	105	105	70-130	0	20
Xylene (Total)	60	64.12	60	64.27	107	107	70-130	0	20
Batch number: 17314SLE026		Sample number(s): 9300726-9300731,9300733-9300734							
Acenaphthene	1666.67	1897.85			114		70-130		
Acenaphthylene	1666.67	1824.71			109		70-130		
Acetophenone	1666.67	1601.5			96		70-130		
4-Aminobiphenyl	1666.67	2336.16			140*		70-130		
Aniline	1666.67	1061.43			64		20-160		
Anthracene	1666.67	1736.99			104		70-130		
Benzidine	8333.33	3134.09			38		20-160		
Benzo(a)anthracene	1666.67	1775.17			107		70-130		
Benzo(a)pyrene	1666.67	1661.22			100		70-130		
Benzo(b)fluoranthene	1666.67	1729.52			104		70-130		
Benzo(g,h,i)perylene	1666.67	1627.09			98		70-130		
Benzo(k)fluoranthene	1666.67	1844.47			111		70-130		
1,1'-Biphenyl	1666.67	1775.96			107		70-130		
4-Bromophenyl-phenylether	1666.67	1585.51			95		70-130		
Butylbenzylphthalate	1666.67	1835.76			110		70-130		
Di-n-butylphthalate	1666.67	1747.9			105		70-130		
Carbazole	1666.67	1645.02			99		70-130		
4-Chloro-3-methylphenol	1666.67	1604.22			96		70-130		
4-Chloroaniline	1666.67	280.23			17*		70-130		
bis(2-Chloroethoxy)methane	1666.67	1555.7			93		70-130		
bis(2-Chloroethyl)ether	1666.67	1658.22			99		70-130		
2-Chloronaphthalene	1666.67	2261.84			136*		70-130		
2-Chlorophenol	1666.67	1855.61			111		70-130		
4-Chlorophenyl-phenylether	1666.67	1621.19			97		70-130		

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,2'-oxybis(1-Chloropropane)	1666.67	1401.2			84		70-130		
Chrysene	1666.67	1826.94			110		70-130		
Dibenz(a,h)anthracene	1666.67	1758.48			106		70-130		
Dibenzo furan	1666.67	1792.94			108		70-130		
3,3'-Dichlorobenzidine	1666.67	1589.33			95		70-130		
2,4-Dichlorophenol	1666.67	1664.77			100		70-130		
Diethylphthalate	1666.67	1856.88			111		70-130		
2,4-Dimethylphenol	1666.67	1350.34			81		70-130		
Dimethylphthalate	1666.67	1688.76			101		70-130		
4,6-Dinitro-2-methylphenol	1666.67	1728.96			104		70-130		
2,4-Dinitrophenol	3333.33	3658			110		20-160		
2,4-Dinitrotoluene	1666.67	1815.33			109		70-130		
2,6-Dinitrotoluene	1666.67	1786.44			107		70-130		
1,4-Dioxane	1666.67	1130.28			68		20-160		
Diphenyl ether	1666.67	1614.06			97		70-130		
1,2-Diphenylhydrazine	1666.67	1792.55			108		70-130		
bis(2-Ethylhexyl)phthalate	1666.67	1909.35			115		70-130		
Fluoranthene	1666.67	1590.26			95		70-130		
Fluorene	1666.67	1746.91			105		70-130		
Hexachlorobenzene	1666.67	1542.63			93		70-130		
Hexachlorobutadiene	1666.67	1564.8			94		70-130		
Hexachlorocyclopentadiene	3333.33	3189.45			96		20-160		
Hexachloroethane	1666.67	1547.76			93		20-160		
Indeno(1,2,3-cd)pyrene	1666.67	1693.67			102		70-130		
Isophorone	1666.67	1566.12			94		70-130		
2-Methylnaphthalene	1666.67	1592.91			96		70-130		
2-Methylphenol	1666.67	1717.86			103		70-130		
4-Methylphenol	1666.67	1520.22			91		20-160		
Naphthalene	1666.67	1742.83			105		70-130		
1-Naphthylamine	3333.33	1668.35			50*		70-130		
2-Naphthylamine	3333.33	727.6			22*		70-130		
2-Nitroaniline	1666.67	1840.75			110		70-130		
3-Nitroaniline	1666.67	1566.31			94		70-130		
4-Nitroaniline	1666.67	1666.76			100		70-130		
Nitrobenzene	1666.67	1628.14			98		70-130		
2-Nitrophenol	1666.67	1736.53			104		70-130		
4-Nitrophenol	1666.67	1130.92			68		20-160		
N-Nitrosodimethylamine	1666.67	1528.47			92		20-160		
N-Nitroso-di-n-propylamine	1666.67	1534.1			92		70-130		
N-Nitrosodiphenylamine	1666.67	1652.41			99		70-130		
Di-n-octylphthalate	1666.67	2016.89			121		70-130		
Parathion	1666.67	1392.73			84		20-160		
Pentachlorobenzene	1666.67	1633.9			98		20-160		
Pentachlorophenol	1666.67	1446.46			87		20-160		

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Phenanthrene	1666.67	1737.81			104		70-130		
Phenol	1666.67	1710.28			103		20-160		
Pyrene	1666.67	1756.86			105		70-130		
2,3,4,6-Tetrachlorophenol	1666.67	1705.38			102		70-130		
o-Toluidine	1666.67	648.14			39*		70-130		
1,2,4-Trichlorobenzene	1666.67	1664.62			100		70-130		
2,4,5-Trichlorophenol	1666.67	1854.34			111		70-130		
2,4,6-Trichlorophenol	1666.67	1870.05			112		70-130		
Batch number: 17310WAE026	Sample number(s): 9300735								
Acenaphthene	50	38.59	50	37.46	77	75	70-130	3	20
Acenaphthylene	50	38.18	50	36.94	76	74	70-130	3	20
Acetophenone	50	36.25	50	35.1	72	70	70-130	3	20
4-Aminobiphenyl	50	113.86	50	95.41	228*	191*	70-130	18	20
Aniline	50	24.67	50	23.05	49	46	20-160	7	20
Anthracene	50	42.31	50	40.18	85	80	70-130	5	20
Benzidine	250	76.76	250	44.98	31	18*	20-160	52*	20
Benzo(a)anthracene	50	47.49	50	46.2	95	92	70-130	3	20
Benzo(a)pyrene	50	39.95	50	39.34	80	79	70-130	2	20
Benzo(b)fluoranthene	50	43.71	50	42.75	87	85	70-130	2	20
Benzo(g,h,i)perylene	50	39.44	50	37.99	79	76	70-130	4	20
Benzo(k)fluoranthene	50	44.14	50	41.86	88	84	70-130	5	20
1,1'-Biphenyl	50	36.38	50	35.4	73	71	70-130	3	20
4-Bromophenyl-phenylether	50	40.71	50	39.05	81	78	70-130	4	20
Butylbenzylphthalate	50	44.23	50	43.07	88	86	70-130	3	20
Di-n-butylphthalate	50	45.72	50	43.19	91	86	70-130	6	20
Carbazole	50	44.24	50	42.01	88	84	70-130	5	20
4-Chloro-3-methylphenol	50	39.35	50	38.34	79	77	70-130	3	20
4-Chloroaniline	50	30.95	50	27.91	62*	56*	70-130	10	20
bis(2-Chloroethoxy)methane	50	36.87	50	37.16	74	74	70-130	1	20
bis(2-Chloroethyl)ether	50	35.92	50	34.86	72	70	70-130	3	20
2-Chloronaphthalene	50	34.5	50	33.9	69*	68*	70-130	2	20
2-Chlorophenol	50	37.82	50	36.61	76	73	70-130	3	20
4-Chlorophenyl-phenylether	50	38.18	50	36.98	76	74	70-130	3	20
2,2'-oxybis(1-Chloropropane)	50	32.99	50	32.16	66*	64*	70-130	3	20
Chrysene	50	47.93	50	47.16	96	94	70-130	2	20
Dibenz(a,h)anthracene	50	41.63	50	41.03	83	82	70-130	1	20
Dibenzofuran	50	38.31	50	37.61	77	75	70-130	2	20
3,3'-Dichlorobenzidine	50	40.78	50	37.86	82	76	70-130	7	20
2,4-Dichlorophenol	50	41.61	50	42.15	83	84	70-130	1	20
Diethylphthalate	50	38.6	50	36.1	77	72	70-130	7	20
2,4-Dimethylphenol	50	33.22	50	32.72	66*	65*	70-130	2	20
Dimethylphthalate	50	28.6	50	25.82	57*	52*	70-130	10	20

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4,6-Dinitro-2-methylphenol	50	44.35	50	45.71	89	91	70-130	3	20
2,4-Dinitrophenol	100	43.17	100	76.86	43	77	20-160	56*	20
2,4-Dinitrotoluene	50	47.33	50	47.94	95	96	70-130	1	20
2,6-Dinitrotoluene	50	47.76	50	48.18	96	96	70-130	1	20
1,4-Dioxane	50	17.84	50	17.47	36	35	20-160	2	20
Diphenyl ether	50	35.28	50	34.8	71	70	70-130	1	20
1,2-Diphenylhydrazine	50	39.61	50	38.28	79	77	70-130	3	20
bis(2-Ethylhexyl)phthalate	50	50.16	50	50.09	100	100	70-130	0	20
Fluoranthene	50	45.56	50	43.14	91	86	70-130	5	20
Fluorene	50	40.34	50	39.31	81	79	70-130	3	20
Hexachlorobenzene	50	39.4	50	37.19	79	74	70-130	6	20
Hexachlorobutadiene	50	23.7	50	20.71	47*	41*	70-130	13	20
Hexachlorocyclopentadiene	100	4.22	100	3.59	4*	4*	20-160	16	20
Hexachloroethane	50	24.25	50	21.22	49	42	20-160	13	20
Indeno(1,2,3-cd)pyrene	50	39.19	50	38.07	78	76	70-130	3	20
Isophorone	50	36.6	50	36.44	73	73	70-130	0	20
2-Methylnaphthalene	50	33.5	50	32.32	67*	65*	70-130	4	20
2-Methylphenol	50	33.87	50	33.25	68*	66*	70-130	2	20
4-Methylphenol	50	32.64	50	31.27	65	63	20-160	4	20
Naphthalene	50	33.16	50	32.93	66*	66*	70-130	1	20
1-Naphthylamine	100	45.57	100	38.06	46*	38*	70-130	18	20
2-Naphthylamine	100	47.56	100	36.97	48*	37*	70-130	25*	20
2-Nitroaniline	50	46.14	50	47.71	92	95	70-130	3	20
3-Nitroaniline	50	44.43	50	44.11	89	88	70-130	1	20
4-Nitroaniline	50	42.79	50	40.64	86	81	70-130	5	20
Nitrobenzene	50	40.01	50	40.3	80	81	70-130	1	20
2-Nitrophenol	50	40.95	50	43.14	82	86	70-130	5	20
4-Nitrophenol	50	27.32	50	26.83	55	54	20-160	2	20
N-Nitrosodimethylamine	50	22.42	50	23.36	45	47	20-160	4	20
N-Nitroso-di-n-propylamine	50	36.29	50	35.63	73	71	70-130	2	20
N-Nitrosodiphenylamine	50	42.96	50	40.73	86	81	70-130	5	20
Di-n-octylphthalate	50	50.22	50	50.78	100	102	70-130	1	20
Parathion	50	48.41	50	48.87	97	98	20-160	1	20
Pentachlorobenzene	50	29.03	50	31.94	58	64	20-160	10	20
Pentachlorophenol	50	44.76	50	43.7	90	87	20-160	2	20
Phenanthrene	50	42.12	50	38.97	84	78	70-130	8	20
Phenol	50	20.71	50	19.71	41	39	20-160	5	20
Pyrene	50	41.95	50	40.69	84	81	70-130	3	20
2,3,4,6-Tetrachlorophenol	50	51.67	50	50.77	103	102	70-130	2	20
o-Toluidine	50	27.34	50	24.42	55*	49*	70-130	11	20
1,2,4-Trichlorobenzene	50	29.48	50	27.89	59*	56*	70-130	6	20
2,4,5-Trichlorophenol	50	43.51	50	43.3	87	87	70-130	0	20
2,4,6-Trichlorophenol	50	46.94	50	46.83	94	94	70-130	0	20

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 173100570805		Sample number(s): 9300726-9300727							
Aluminum	200	200.21			100		80-120		
Calcium	400	403.27			101		80-120		
Iron	100	98.74			99		80-120		
Magnesium	200	201			100		80-120		
Potassium	1000	1000.98			100		80-120		
Sodium	1000	1011			101		80-120		
Zinc	50	50.63			101		80-120		
Batch number: 173100570805A		Sample number(s): 9300726-9300727							
Antimony	0.600	0.492			82		80-120		
Arsenic	1.00	0.886			89		80-120		
Beryllium	0.400	0.425			106		80-120		
Cadmium	0.500	0.479			96		80-120		
Chromium	5.00	5.08			102		80-120		
Cobalt	25	25.45			102		80-120		
Copper	5.00	5.25			105		80-120		
Lead	1.50	1.51			101		80-120		
Manganese	5.00	5.46			109		80-120		
Nickel	5.00	4.96			99		80-120		
Silver	5.00	5.25			105		80-120		
Thallium	0.200	0.199			100		80-120		
Vanadium	5.00	5.46			109		80-120		
Batch number: 173100570805B		Sample number(s): 9300726-9300727							
Selenium	1.00	1.07			107		80-120		
Batch number: 173100570805D		Sample number(s): 9300726-9300727							
Barium	5.00	5.13			103		80-120		
Batch number: 173100571106		Sample number(s): 9300726-9300727							
Mercury	0.100	0.0933			93		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 173100570504		Sample number(s): 9300735							
Aluminum	2.00	2.17			108		80-120		
Calcium	4.00	3.84			96		80-120		
Iron	1.00	0.957			96		80-120		
Magnesium	2.00	1.95			98		80-120		
Potassium	10	9.68			97		80-120		
Sodium	10	9.58			96		80-120		
Zinc	0.500	0.499			100		80-120		
Batch number: 173100571312		Sample number(s): 9300735							
Mercury	0.00100	0.000884			88		80-120		

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC

Group Number: 1871371

Reported: 12/14/2017 15:40

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 173100605001A		Sample number(s): 9300735							
Antimony	0.00600	0.00503			84		80-120		
Arsenic	0.0100	0.0102			102		80-120		
Beryllium	0.00400	0.00402			100		80-120		
Cadmium	0.00500	0.00516			103		80-120		
Chromium	0.0500	0.0519			104		80-120		
Cobalt	0.250	0.252			101		80-120		
Copper	0.0500	0.0527			105		80-120		
Lead	0.0150	0.0152			101		80-120		
Manganese	0.0500	0.0491			98		80-120		
Silver	0.0500	0.0515			103		80-120		
Thallium	0.00200	0.00191			95		80-120		
Vanadium	0.0500	0.0516			103		80-120		
Batch number: 173100605001B		Sample number(s): 9300735							
Selenium	0.0100	0.00980			98		80-120		
Batch number: 173100605001D		Sample number(s): 9300735							
Barium	0.0500	0.0489			98		80-120		
Batch number: 173200605002A		Sample number(s): 9300735							
Nickel	0.0500	0.0488			98		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17317667633B		Sample number(s): 9300726-9300728,9300733-9300734							
Total Organic Carbon (TOC)	7150	6437.83			90		47-143		
Batch number: 17320667631A		Sample number(s): 9300729-9300732							
Total Organic Carbon (TOC)	7150	7689.05			108		47-143		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17317667604A		Sample number(s): 9300735							
Total Organic Carbon (Quad)	25	25.68			103		91-113		
	%	%	%	%					
Batch number: 17311820007B		Sample number(s): 9300726-9300734							
Moisture	89.5	89.43			100		99-101		
Moisture	89.5	89.43			100		99-101		
Moisture Duplicate	89.5	89.43			100		99-101		

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: J173181AA										
Chlorodifluoroethane	1 U	19.92	21.66	19.57	21.12	109	108	70-130	3	30
Chlorodifluoromethane	2 U	19.92	21.22	19.57	22.28	107	114	70-130	5	30
Chlorofluoromethane	1 U	19.92	18.31	19.57	18.62	92	95	70-130	2	30
1,1-Dichloro-1-fluoroethane	1 U	19.92	23.16	19.57	20.9	116	107	70-130	10	30
1,2-Dichloro-1-fluoroethane	1 U	19.92	18.29	19.57	18.77	92	96	70-130	3	30
Dichlorotetrafluoroethane	2 U	19.92	19.61	19.57	19.83	98	101	70-130	1	30
1,2-Dichlorotrifluoroethane	1 U	19.92	19.45	19.57	19.88	98	102	70-130	2	30
Dichlorotrifluoroethane	1 U	19.92	19.11	19.57	19.08	96	97	70-130	0	30
Freon 113a	5 U	19.92	18.56	19.57	18.11	93	93	70-130	2	30
1,1,2-Trifluoroethane	2 U	19.92	20.97	19.57	18.74	105	96	70-130	11	30
Batch number: R173171AA										
Acetone	360 U	7396.46	7418	7142.85	7551.11	100	106	60-140	2	30
Benzene	175.43	986.19	1035.9	952.38	1047.97	87	92	70-130	1	30
Bromodichloromethane	51 U	986.19	951.01	952.38	1001.22	96	105	70-130	5	30
2-Butanone	210 U	7396.46	6253.16	7142.85	6392.8	85	89	60-140	2	30
n-Butylbenzene	51 U	986.19	796.89	952.38	935.8	81	98	70-130	16	30
sec-Butylbenzene	51 U	986.19	824.86	952.38	947.42	84	99	70-130	14	30
tert-Butylbenzene	51 U	986.19	799.02	952.38	908.75	81	95	70-130	13	30
Carbon Disulfide	51 U	986.19	877.32	952.38	921.63	89	97	60-140	5	30
Carbon Tetrachloride	51 U	986.19	1021.52	952.38	1017.56	104	107	70-130	0	30
Chlorobenzene	1389.41	986.19	1395.12	952.38	1067.38	1*	-33*	70-130	27	30
Chloroethane	100 U	986.19	854.16	952.38	900.63	87	95	60-140	5	30
Chloroform	51 U	986.19	976.38	952.38	1018.65	99	107	70-130	4	30
Chloromethane	100 U	986.19	734.76	952.38	716.3	75	75	60-140	3	30
2-Chlorotoluene	51 U	986.19	878.35	952.38	913.03	89	96	70-130	4	30
4-Chlorotoluene	51 U	986.19	866.58	952.38	904.41	88	95	70-130	4	30
Dibromochloromethane	51 U	986.19	874.51	952.38	953.9	89	100	70-130	9	30
1,2-Dibromoethane	51 U	986.19	890.34	952.38	965.7	90	101	70-130	8	30
1,2-Dichlorobenzene	120.61	986.19	940.01	952.38	990.39	83	91	70-130	5	30
1,3-Dichlorobenzene	51 U	986.19	862.65	952.38	943.2	87	99	70-130	9	30
1,4-Dichlorobenzene	269.88	986.19	1043.91	952.38	1021.41	78	79	70-130	2	30
Dichlorodifluoromethane	100 U	986.19	422.2	952.38	394.81	43*	41*	60-140	7	30
1,1-Dichloroethane	51 U	986.19	989.42	952.38	1038.57	100	109	70-130	5	30
1,2-Dichloroethane	51 U	986.19	1028.91	952.38	1037.59	104	109	70-130	1	30
1,1-Dichloroethene	51 U	986.19	1013.86	952.38	1045.59	103	110	70-130	3	30
cis-1,2-Dichloroethene	51 U	986.19	1047.46	952.38	1065.33	106	112	70-130	2	30
trans-1,2-Dichloroethene	51 U	986.19	996.71	952.38	1007.46	101	106	70-130	1	30
1,2-Dichloroethene (Total)	51 U	1972.39	2044.17	1904.76	2072.79	104	109	70-130	1	30
Dichlorofluoromethane	100 U	986.19	906.04	952.38	865.88	92	91	70-130	5	30
1,2-Dichloropropane	51 U	986.19	1001.65	952.38	1039.28	102	109	70-130	4	30
1,1-Dichloropropene	51 U	986.19	1003.87	952.38	1003.82	102	105	70-130	0	30

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(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max	
cis-1,3-Dichloropropene	51	U	986.19	978.14	952.38	1045.43	99	110	70-130	7	30
Ethylbenzene	51	U	986.19	893.85	952.38	933.48	91	98	70-130	4	30
Freon 113	100	U	986.19	935.31	952.38	972.11	95	102	70-130	4	30
n-Hexane	51	U	986.19	855.57	952.38	852.48	87	90	70-130	0	30
2-Hexanone	150	U	4930.97	4152.61	4761.9	4515.2	84	95	60-140	8	30
Isobutyl Alcohol	5,100	U	24654.85	21128.56	23809.5	21773.73	86	91	70-130	3	30
Isopropylbenzene	51	U	986.19	873.62	952.38	955.28	89	100	70-130	9	30
p-Isopropyltoluene	51	U	986.19	837.62	952.38	956.72	85	100	70-130	13	30
Methacrylonitrile	260	U	7396.46	7486.32	7142.85	7832.63	101	110	70-130	5	30
Methyl Methacrylate	51	U	986.19	911.92	952.38	952.2	92	100	70-130	4	30
Methyl Tertiary Butyl Ether	26	U	986.19	980.75	952.38	992.08	99	104	70-130	1	30
4-Methyl-2-pentanone	150	U	4930.97	4765.66	4761.9	4998.92	97	105	60-140	5	30
Methylene Chloride	100	U	986.19	973.42	952.38	1031.86	99	108	70-130	6	30
Propionitrile	1,500	U	7396.46	7808.42	7142.85	7834.96	106	110	70-130	0	30
n-Propylbenzene	51	U	986.19	824.87	952.38	883.12	84	93	70-130	7	30
Styrene	51	U	986.19	875.55	952.38	921.21	89	97	70-130	5	30
1,1,1,2-Tetrachloroethane	51	U	986.19	916.42	952.38	972.91	93	102	70-130	6	30
1,1,2,2-Tetrachloroethane	51	U	986.19	860.15	952.38	886.93	87	93	70-130	3	30
Tetrachloroethene	51	U	986.19	878.27	952.38	954.19	89	100	70-130	8	30
Tetrahydrofuran	210	U	4930.97	4367.33	4761.9	4675.06	89	98	70-130	7	30
Toluene	51	U	986.19	890.99	952.38	987.21	90	104	70-130	10	30
1,1,1-Trichloroethane	51	U	986.19	1002.34	952.38	1023.1	102	107	70-130	2	30
1,1,2-Trichloroethane	51	U	986.19	896.85	952.38	984.11	91	103	70-130	9	30
Trichloroethene	51	U	986.19	964.02	952.38	996.6	98	105	70-130	3	30
Trichlorofluoromethane	100	U	986.19	824.26	952.38	835.83	84	88	60-140	1	30
1,2,4-Trimethylbenzene	51	U	986.19	827.97	952.38	917.42	84	96	70-130	10	30
1,3,5-Trimethylbenzene	51	U	986.19	834.1	952.38	904.13	85	95	70-130	8	30
Vinyl Chloride	51	U	986.19	774.19	952.38	777.29	79	82	70-130	0	30
m+p-Xylene	51	U	1972.39	1839.3	1904.76	1931.11	93	101	70-130	5	30
o-Xylene	51	U	986.19	891.19	952.38	948.13	90	100	70-130	6	30
Xylene (Total)	51	U	2958.58	2730.49	2857.14	2879.24	92	101	70-130	5	30
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg					
Batch number: 17314SLE026		Sample number(s): 9300726-9300731,9300733-9300734 UNSPK: 9300729									
Acenaphthene	3	U	1664.45	1932.67	1659.48	1923.05	116	116	70-130	0	30
Acenaphthylene	3	U	1664.45	1769.02	1659.48	1901.18	106	115	70-130	7	30
Acetophenone	17	U	1664.45	1632.85	1659.48	1671.38	98	101	70-130	2	30
4-Aminobiphenyl	170	U	1664.45	3190.54	1659.48	3206.43	192*	193*	70-130	0	30
Aniline	170	U	1664.45	1028.16	1659.48	1012.32	62	61	20-160	2	30
Anthracene	3	U	1664.45	1712.52	1659.48	1670.48	103	101	70-130	2	30
Benzidine	250	U	8322.24	3508.37	8297.38	3175.4	42	38	20-160	10	30
Benzo(a)anthracene	3	U	1664.45	1575.22	1659.48	1655.02	95	100	70-130	5	30
Benzo(a)pyrene	3	U	1664.45	1606.54	1659.48	1594.39	97	96	70-130	1	30

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzo(b)fluoranthene	3 U	1664.45	1792.98	1659.48	1705.06	108	103	70-130	5	30
Benzo(g,h,i)perylene	3 U	1664.45	1655.83	1659.48	1674.83	99	101	70-130	1	30
Benzo(k)fluoranthene	3 U	1664.45	1711.59	1659.48	1732.34	103	104	70-130	1	30
1,1'-Biphenyl	17 U	1664.45	1852.79	1659.48	1765.02	111	106	70-130	5	30
4-Bromophenyl-phenylether	17 U	1664.45	1667.55	1659.48	1523.46	100	92	70-130	9	30
Butylbenzylphthalate	66 U	1664.45	1816.8	1659.48	1827.77	109	110	70-130	1	30
Di-n-butylphthalate	66 U	1664.45	1735.99	1659.48	1549.67	104	93	70-130	11	30
Carbazole	17 U	1664.45	1636.22	1659.48	1477.01	98	89	70-130	10	30
4-Chloro-3-methylphenol	17 U	1664.45	1776.5	1659.48	1745.5	107	105	70-130	2	30
4-Chloroaniline	33 U	1664.45	615.12	1659.48	548.44	37*	33*	70-130	11	30
bis(2-Chloroethoxy)methane	17 U	1664.45	1625.74	1659.48	1525.74	98	92	70-130	6	30
bis(2-Chloroethyl)ether	17 U	1664.45	1606.14	1659.48	1643.61	96	99	70-130	2	30
2-Chloronaphthalene	7 U	1664.45	1796.26	1659.48	1722.06	108	104	70-130	4	30
2-Chlorophenol	17 U	1664.45	1814.11	1659.48	1876.91	109	113	70-130	3	30
4-Chlorophenyl-phenylether	17 U	1664.45	1582.9	1659.48	1762.25	95	106	70-130	11	30
2,2'-oxybis(1-Chloropropane)	17 U	1664.45	1480.32	1659.48	1505.69	89	91	70-130	2	30
Chrysene	3 U	1664.45	1554.72	1659.48	1706.86	93	103	70-130	9	30
Dibenz(a,h)anthracene	3 U	1664.45	1539.89	1659.48	1536.89	93	93	70-130	0	30
Dibenzo[f,g]furan	17 U	1664.45	1793.86	1659.48	1859.39	108	112	70-130	4	30
3,3'-Dichlorobenzidine	99 U	1664.45	969.92	1659.48	1132.6	58*	68*	70-130	15	30
2,4-Dichlorophenol	17 U	1664.45	1703.51	1659.48	1644.71	102	99	70-130	4	30
Diethylphthalate	66 U	1664.45	1863.09	1659.48	1963.84	112	118	70-130	5	30
2,4-Dimethylphenol	17 U	1664.45	1388.12	1659.48	1379.4	83	83	70-130	1	30
Dimethylphthalate	66 U	1664.45	1665.72	1659.48	1812.9	100	109	70-130	8	30
4,6-Dinitro-2-methylphenol	170 U	1664.45	1495.16	1659.48	1601.55	90	97	70-130	7	30
2,4-Dinitrophenol	300 U	3328.89	1547.45	3318.95	1847.44	46	56	20-160	18	30
2,4-Dinitrotoluene	66 U	1664.45	1861.75	1659.48	1884.26	112	114	70-130	1	30
2,6-Dinitrotoluene	17 U	1664.45	1715.68	1659.48	1827.9	103	110	70-130	6	30
1,4-Dioxane	99 U	1664.45	1236.13	1659.48	1236.09	74	74	20-160	0	30
Diphenyl ether	17 U	1664.45	1645.82	1659.48	1670.71	99	101	70-130	2	30
1,2-Diphenylhydrazine	17 U	1664.45	1772.5	1659.48	1804.64	106	109	70-130	2	30
bis(2-Ethylhexyl)phthalate	66 U	1664.45	1728.35	1659.48	1812.95	104	109	70-130	5	30
Fluoranthene	3 U	1664.45	1558.98	1659.48	1536.25	94	93	70-130	1	30
Fluorene	3 U	1664.45	1748.75	1659.48	1804.33	105	109	70-130	3	30
Hexachlorobenzene	3 U	1664.45	1569.88	1659.48	1502.95	94	91	70-130	4	30
Hexachlorobutadiene	17 U	1664.45	1553.35	1659.48	1517.89	93	91	70-130	2	30
Hexachlorocyclopentadiene	170 U	3328.89	2454.05	3318.95	2711.44	74	82	20-160	10	30
Hexachloroethane	33 U	1664.45	1610.47	1659.48	1641.01	97	99	20-160	2	30
Indeno(1,2,3-cd)pyrene	3 U	1664.45	1535.7	1659.48	1617.29	92	97	70-130	5	30
Isophorone	17 U	1664.45	1663.38	1659.48	1646.98	100	99	70-130	1	30
2-Methylnaphthalene	3 U	1664.45	1730.01	1659.48	1699.16	104	102	70-130	2	30
2-Methylphenol	17 U	1664.45	1799.15	1659.48	1860.75	108	112	70-130	3	30
4-Methylphenol	17 U	1664.45	1579.02	1659.48	1639.41	95	99	20-160	4	30

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(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

## MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Naphthalene	3 U	1664.45	1740.4	1659.48	1712.16	105	103	70-130	2	30
1-Naphthylamine	170 U	3328.89	1590.86	3318.95	1513.25	48*	46*	70-130	5	30
2-Naphthylamine	170 U	3328.89	979.11	3318.95	980.54	29*	30*	70-130	0	30
2-Nitroaniline	17 U	1664.45	1957.91	1659.48	2012.08	118	121	70-130	3	30
3-Nitroaniline	66 U	1664.45	1526.82	1659.48	1461.62	92	88	70-130	4	30
4-Nitroaniline	66 U	1664.45	1572.47	1659.48	1779.1	94	107	70-130	12	30
Nitrobenzene	17 U	1664.45	1693.1	1659.48	1707.06	102	103	70-130	1	30
2-Nitrophenol	17 U	1664.45	1802.76	1659.48	1802.56	108	109	70-130	0	30
4-Nitrophenol	170 U	1664.45	976.39	1659.48	969.06	59	58	20-160	1	30
N-Nitrosodimethylamine	66 U	1664.45	1673.04	1659.48	1658.38	101	100	20-160	1	30
N-Nitroso-di-n-propylamine	17 U	1664.45	1653.6	1659.48	1678.3	99	101	70-130	1	30
N-Nitrosodiphenylamine	17 U	1664.45	1588.85	1659.48	1616.65	95	97	70-130	2	30
Di-n-octylphthalate	66 U	1664.45	2052.68	1659.48	2035.74	123	123	70-130	1	30
Parathion	170 U	1664.45	1593.48	1659.48	1429.08	96	86	20-160	11	30
Pentachlorobenzene	17 U	1664.45	1605.62	1659.48	1701.62	96	103	20-160	6	30
Pentachlorophenol	33 U	1664.45	1227.74	1659.48	1103.61	74	67	20-160	11	30
Phenanthere	3 U	1664.45	1700.07	1659.48	1684.76	102	102	70-130	1	30
Phenol	17 U	1664.45	1730.37	1659.48	1756.99	104	106	20-160	2	30
Pyrene	3 U	1664.45	1674.84	1659.48	1696.94	101	102	70-130	1	30
2,3,4,6-Tetrachlorophenol	66 U	1664.45	1736.85	1659.48	1821.18	104	110	70-130	5	30
o-Toluidine	200 U	1664.45	734.5	1659.48	691.34	44*	42*	70-130	6	30
1,2,4-Trichlorobenzene	17 U	1664.45	1651.91	1659.48	1586.86	99	96	70-130	4	30
2,4,5-Trichlorophenol	17 U	1664.45	1791.3	1659.48	1863.46	108	112	70-130	4	30
2,4,6-Trichlorophenol	17 U	1664.45	1843.51	1659.48	1844.94	111	111	70-130	0	30
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 173100570805	Sample number(s): 9300726-9300727 UNSPK: P300729									
Aluminum	3128.92	176.99	5534.79	186.92	5868.48	1359 (2)	1466 (2)	75-125	6	20
Calcium	60.75	353.98	423.37	373.83	433.15	102	100	75-125	2	20
Iron	4450.05	88.5	5591.27	93.46	6376.46	1290 (2)	2061 (2)	75-125	13	20
Magnesium	615.28	176.99	1149.22	186.92	1125.01	302*	273*	75-125	2	20
Potassium	506.71	884.96	1857.13	934.58	1941.24	153*	153*	75-125	4	20
Sodium	71.95	884.96	965.5	934.58	987.64	101	98	75-125	2	20
Zinc	8.50	44.25	54.91	46.73	57.42	105	105	75-125	4	20
Batch number: 173100570805A	Sample number(s): 9300726-9300727 UNSPK: P300729									
Antimony	0.0825 U	1.06	0.774	1.12	0.844	73*	75	75-125	9	20
Arsenic	1.14	1.77	3.23	1.87	3.37	118	119	75-125	4	20
Beryllium	0.0904	0.708	0.807	0.748	0.834	101	99	75-125	3	20
Cadmium	0.0304 U	0.885	0.865	0.935	0.853	98	91	75-125	1	20
Chromium	5.45	8.85	15.83	9.35	15.8	117	111	75-125	0	20
Cobalt	1.48	44.25	46.07	46.73	49.25	101	102	75-125	7	20
Copper	3.13	8.85	13.04	9.35	13.86	112	115	75-125	6	20

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC

Group Number: 1871371

Reported: 12/14/2017 15:40

## MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Lead	1.66	2.65	6.20	2.80	4.84	171*	113	75-125	25*	20
Manganese	33.47	8.85	51.94	9.35	50.54	209*	183*	75-125	3	20
Nickel	3.57	8.85	13.74	9.35	14.63	115	118	75-125	6	20
Silver	0.0258 U	8.85	8.95	9.35	9.58	101	103	75-125	7	20
Thallium	0.0242	0.354	0.372	0.374	0.393	98	99	75-125	6	20
Vanadium	4.57	8.85	15.12	9.35	15.28	119	115	75-125	1	20
Batch number: 173100570805B	Sample number(s): 9300726-9300727 UNSPK: P300729									
Selenium	0.0885 U	1.77	1.79	1.87	1.84	101	98	75-125	3	20
Batch number: 173100570805D	Sample number(s): 9300726-9300727 UNSPK: P300729									
Barium	9.77	8.85	33.45	9.35	23.67	268*	149*	75-125	34*	20
Batch number: 173100571106	Sample number(s): 9300726-9300727 UNSPK: P300729									
Mercury	0.0094 U	0.156	0.151	0.161	0.156	97	97	80-120	4	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 173100570504	Sample number(s): 9300735 UNSPK: P292995									
Aluminum	0.0894 U	2.00	2.18	2.00	2.15	109	107	75-125	2	20
Calcium	26.78	4.00	30.13	4.00	30.58	84 (2)	95 (2)	75-125	1	20
Iron	0.0805 U	1.00	1.02	1.00	1.01	102	101	75-125	1	20
Magnesium	10.48	2.00	12.16	2.00	12.33	84 (2)	92 (2)	75-125	1	20
Potassium	2.83	10	12.42	10	12.37	96	95	75-125	0	20
Sodium	7.27	10	16.76	10	16.86	95	96	75-125	1	20
Zinc	0.0065 U	0.500	0.503	0.500	0.502	101	100	75-125	0	20
Batch number: 173100571312	Sample number(s): 9300735 UNSPK: P300509									
Mercury	0.00245	0.00100	0.00338	0.00100	0.00337	93	92	80-120	0	20
Batch number: 173100605001A	Sample number(s): 9300735 UNSPK: P298505									
Antimony	0.00045 U	0.00600	0.00557	0.00600	0.00647	93	108	75-125	15	20
Arsenic	0.000782	0.0100	0.0121	0.0100	0.0113	113	105	75-125	7	20
Beryllium	0.000071 U	0.00400	0.00407	0.00400	0.00408	102	102	75-125	0	20
Cadmium	0.00015 U	0.00500	0.00500	0.00500	0.00493	100	99	75-125	1	20
Chromium	0.00087 U	0.0500	0.0526	0.0500	0.0508	105	102	75-125	3	20
Cobalt	0.000315	0.250	0.261	0.250	0.265	104	106	75-125	2	20
Copper	0.00054 U	0.0500	0.0542	0.0500	0.0553	108	111	75-125	2	20
Lead	0.000289	0.0150	0.0158	0.0150	0.0156	104	102	75-125	1	20
Manganese	0.0450	0.0500	0.0997	0.0500	0.0929	110	96	75-125	7	20
Silver	0.00015 U	0.0500	0.0454	0.0500	0.0463	91	93	75-125	2	20
Thallium	0.00012 U	0.00200	0.00219	0.00200	0.00212	110	106	75-125	4	20
Vanadium	0.00021 U	0.0500	0.0529	0.0500	0.0525	106	105	75-125	1	20

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC

Group Number: 1871371

Reported: 12/14/2017 15:40

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 173100605001B Selenium	Sample number(s): 9300735 UNSPK: P298505 0.00050 U 0.0100 0.00990 0.0100 0.00984 99 98 75-125 1 20									
Batch number: 173100605001D Barium	Sample number(s): 9300735 UNSPK: P298505 0.0217 0.0500 0.0709 0.0500 0.0711 98 99 75-125 0 20									
Batch number: 173200605002A Nickel	Sample number(s): 9300735 UNSPK: P316597 0.00241 0.0500 0.0537 0.0500 0.0571 103 109 75-125 6 20									
	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>					
Batch number: 17317667633B Total Organic Carbon (TOC)	Sample number(s): 9300726-9300728,9300733-9300734 UNSPK: 9300728 302.69 14880 17316.47 114 47-143									
Batch number: 17320667631A Total Organic Carbon (TOC)	Sample number(s): 9300729-9300732 UNSPK: 9300729 219.26 15990 17893.33 16710 19526.2 111 116 47-143 9 20									
	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>					
Batch number: 17317667604A Total Organic Carbon (Quad)	Sample number(s): 9300735 UNSPK: P302105 0.50 U 10 10.3 10 10.58 103 106 91-113 3 20									

### Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Batch number: 173100570805	Sample number(s): 9300726-9300727 BKG: P300729 3128.92 3873.93 21* 20			
Aluminum	60.75 66.85 10 (1) 20			
Calcium	4450.05 6218.75 33* 20			
Iron	615.28 858.62 33* 20			
Magnesium	506.71 557.1 9 20			
Potassium	71.95 80.92 12 (1) 20			
Sodium	8.50 12.31 37* (1) 20			
Zinc				
Batch number: 173100570805A	Sample number(s): 9300726-9300727 BKG: P300729 0.0825 U 0.0879 U 0 (1) 20			
Antimony	1.14 1.18 3 (1) 20			
Arsenic	0.0904 0.108 18 (1) 20			
Beryllium	0.0304 U 0.0325 U 0 (1) 20			
Cadmium	5.45 6.51 18 20			
Chromium				

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC

Group Number: 1871371

Reported: 12/14/2017 15:40

### Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Cobalt	1.48	1.81	20	20
Copper	3.13	4.40	34*	20
Lead	1.66	1.97	17	20
Manganese	33.47	44.22	28*	20
Nickel	3.57	4.87	31*	20
Silver	0.0258 U	0.0275 U	0 (1)	20
Thallium	0.0242	0.0236 U	200* (1)	20
Vanadium	4.57	5.49	18	20
Batch number: 173100570805B	Sample number(s): 9300726-9300727 BKG: P300729			
Selenium	0.0885 U	0.0943 U	0 (1)	20
Batch number: 173100570805D	Sample number(s): 9300726-9300727 BKG: P300729			
Barium	9.77	10.49	7	20
Batch number: 173100571106	Sample number(s): 9300726-9300727 BKG: P300729			
Mercury	0.0094 U	0.0098 U	0 (1)	20
<b>mg/l</b>				
Batch number: 173100570504	Sample number(s): 9300735 BKG: P292995			
Aluminum	0.0894 U	0.0894 U	0 (1)	20
Calcium	26.78	26.5	1	20
Iron	0.0805 U	0.104	200* (1)	20
Magnesium	10.48	10.32	2	20
Potassium	2.83	2.79	2	20
Sodium	7.27	7.20	1	20
Zinc	0.0065 U	0.0065 U	0 (1)	20
Batch number: 173100571312	Sample number(s): 9300735 BKG: P300509			
Mercury	0.00245	0.00246	1	20
Batch number: 173100605001A	Sample number(s): 9300735 BKG: P298505			
Antimony	0.00045 U	0.00045 U	0 (1)	20
Arsenic	0.000782	0.00072 U	200* (1)	20
Beryllium	0.000071 U	0.000071 U	0 (1)	20
Cadmium	0.000015 U	0.000015 U	0 (1)	20
Chromium	0.000087 U	0.000087 U	0 (1)	20
Cobalt	0.0000315	0.0000273	14 (1)	20
Copper	0.000054 U	0.0000569	200* (1)	20
Lead	0.000289	0.000363	23* (1)	20
Manganese	0.0450	0.0498	10	20
Silver	0.000015 U	0.000015 U	0 (1)	20
Thallium	0.000012 U	0.000012 U	0 (1)	20
Vanadium	0.000021 U	0.000021 U	0 (1)	20

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 173100605001B Selenium	Sample number(s): 9300735 BKG: P298505 0.00050 U	0.00050 U	0 (1)	20
Batch number: 173100605001D Barium	Sample number(s): 9300735 BKG: P298505 0.0217	0.0200	8	20
Batch number: 173200605002A Nickel	Sample number(s): 9300735 BKG: P316597 0.00241	0.00289	18 (1)	20
	mg/kg	mg/kg		
Batch number: 17317667633B Total Organic Carbon (TOC)	Sample number(s): 9300726-9300728, 9300733-9300734 BKG: 9300728 302.69	306.44	1 (1)	7
Batch number: 17320667631A Total Organic Carbon (TOC)	Sample number(s): 9300729-9300732 BKG: 9300729 219.26	258.48	16* (1)	7
	%	%		
Batch number: 17311820007B Moisture	Sample number(s): 9300726-9300734 BKG: 9300729, P300729 10.87	10.74	1	5
Moisture	10.87	10.74	1	5
Moisture Duplicate	10.87	10.74	1	5

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: Freons

Batch number: J173111AA

	1,2-Dichloroethane-d4	Fluorobenzene
9300735	108	110
9300736	107	108
Blank	110	112
LCS	107	107
LCSD	108	108
Limits:	70-130	70-130

Analysis Name: Freons

Batch number: J173171AA

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: Freons

Batch number: J173171AA

	1,2-Dichloroethane-d4	Fluorobenzene
9300726	100	99
9300727	98	98
9300728	101	97
Blank	99	98
LCS	100	97
LCSD	98	94

Limits: 70-130      70-130

Analysis Name: Freons

Batch number: J173181AA

	1,2-Dichloroethane-d4	Fluorobenzene
9300729	100	100
9300730	99	99
9300731	104	102
9300733	99	103
9300734	102	104
Blank	98	97
LCS	103	104
LCSD	99	99
MS	99	99
MSD	104	102

Limits: 70-130      70-130

Analysis Name: TCL Volatiles + Add'l Cmpds

Batch number: R173171AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9300729	100	105	88	87
9300730	91	97	80	79
9300731	91	92	86	80
9300734	86	89	77	74
Blank	102	105	92	91
LCS	99	100	92	92
LCSD	97	100	88	87
MS	91	97	80	79
MSD	91	92	86	80

Limits: 70-130      70-130      70-130      70-130

\*- Outside of specification

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## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: TCL Volatiles + Add'l Cmpds

Batch number: X173182AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9300726	109	107	104	74
9300727	107	123	105	77
9300728	109	109	91	89
9300733	106	106	90	94
Blank	110	106	92	87
LCS	103	101	96	100
LCSD	101	103	94	99
Limits:	70-130	70-130	70-130	70-130

Analysis Name: TCL Volatiles + Add'l Cmpds

Batch number: Y173182AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9300735	95	102	99	95
9300736	94	102	98	95
Blank	93	103	99	95
LCS	93	99	101	101
LCSD	93	100	101	101
Limits:	70-130	70-130	70-130	70-130

Analysis Name: TCL SVOAs + Add'l Cmpds

Batch number: 17310WAE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9300735	26	38	81	70	58	71
Blank	26	38	78	67	70	81
LCS	35	47	89	69	64	77
LCSD	34	46	89	71	63	75
Limits:	15-110	15-110	15-110	30-130	30-130	30-130

Analysis Name: TCL SVOAs + Add'l Cmpds

Batch number: 17314SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9300726	91	98	93	89	91	81
9300727	88	97	83	86	89	81
9300728	96	102	91	89	88	95
9300729	97	104	90	93	94	93
9300730	103	107	90	94	98	91

\*- Outside of specification

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##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: CRG-The Chemours Co. FC, LLC  
Reported: 12/14/2017 15:40

Group Number: 1871371

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: TCL SVOAs + Add'l Cmpds

Batch number: 17314SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9300731	106	109	96	94	102	92
9300733	99	103	95	84	96	92
9300734	96	100	94	81	84	89
Blank	90	99	97	88	93	92
LCS	102	107	90	90	101	96
MS	103	107	90	94	98	91
MSD	106	109	96	94	102	92
Limits:	30-130	30-130	30-130	30-130	30-130	30-130

\*- Outside of specification

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## Analysis Request / Environmental Services Chain of Custody

1 of 1

VOCs + CFCs

For Eurofins Lancaster Laboratories Use Only

Group No.: 51371 Sample Nos.: 93W0726-36

Acc't: 07032 SF: 285389 SCR No: 214379

Cooler No.: C20606 37575

Cooler Temperature upon receipt: 10 °C

Container No.: 2

Facility Name: Chambers Works		Project Manager: Kathy West		Analyses Required						Comments:	
Facility Contact: Kathy West		Facility Contact Phone No.: 856-540-2056								DKQP	
Facility Address: Chemours Chambers Works		Job No.: 77201000-WH06507774									
Rt 130 & Canal Road Deepwater NJ 08023		Release No.: PO Number: LBIO-67047									
Sampler(s): <i>A. Dyreff, K. West, J. Jones</i>		Project Name: DE RIVER NAPL DELINEATION PHASE III									
Sample Identification	Date Collected	Time Collected	Matrix	Containers			TCL Volatiles + TICs (8260B)	Freons (8260B)	Condition upon receipt: <i>Intact</i>		
				Volume (ml)	Preserv	No.					
D15-BOR-21-(0-0.5)	<i>11/4/17</i>	<i>1040</i>	SW	5	None	5	X	X			
D15-BOR-21-(0.5-1.0)	<i>11/4/17</i>	<i>1045</i>	SW	5	None	5	X	X			
D15-BOR-21-(4.5-5.0)	<i>11/4/17</i>	<i>11:15</i>	SW	5	None	5	X	X			
D15-BOR-21-(6.0-6.5)	<i>11/4/17</i>	<i>11:05</i>	SW	5	None	5	X	X			
D15-BOR-21-(7.8-8.0)	<i>11/4/17</i>	<i>11:25</i>	SW	5	None	5	X	X			
D15-BOR-21-(8.0-8.3)	<i>11/4/17</i>	<i>11:30</i>	SW	5	None	5	X	X			
									<i>Aquiferd</i>		
Turnaround Time Requested (please circle):		Standard	RUSH	Number of days: 8		Special Instructions:					
Bottles Relinquished by:		Date <i>11/4/17</i>	Time <i>1200</i>	Bottles Received by:						Date:	Time:
Bottles Relinquished by:		Date	Time	Bottles Received by:						Date:	Time:
Bottles Relinquished by:		Date	Time	Bottles Received by:						Date:	Time:
Bottles Relinquished by:		Date	Time	Bottles Received by:						<i>J. Jones</i>	<i>11/8/17</i>

## Analysis Request / Environmental Services Chain of Custody

1 of 1

For Eurofins Lancaster Laboratories Use Only

Group No.: 1671371 Sample Nos.: 9300726-36

Acc't: 07032 SF: 285389 SCR No.: 214390

Cooler No.: C30479 37597

Cooler Temperature upon receipt: 07 °C Container No.: 1

Facility Name: Chambers Works	Project Manager: Kathy West						Analyses Required						Comments:
Facility Contact: Kathy West	Facility Contact Phone No.: 856-540-2056												DKQP
Facility Address: Chemours Chambers Works	Job No.: 77201000-WH06507462												
Rt 130 & Canal Road	Release No.:												
Deepwater NJ 08023	PO Number: LBIO-67047												
Sampler(s): A. Dyruff, J. Gomes, K. west													
Project Name: DE RIVER NAPL DELINEATION PHASE III													
Sample Identification	Date Collected	Time Collected	Matrix	Containers			TCL Semivolatiles (82/70C) + TICs	Grain Size (ASTM D422)	TAL Metals (60207471A)	Moisture (2540 G)	TOC (SW-846 9060A mod)	Condition upon receipt:	
				Volume (ml)	Preserv	No.							
D15-BOR-21-(0-0.5)	11/14/17	10:40	SW	125	None	1	X	X	X	X		In tact	
D15-BOR-21-(0-0.5)		10:40	SW	500	None	1		X					
D15-BOR-21-(0.5-1.0)		10:45	SW	125	None	1	X		X	X	X		
D15-BOR-21-(0.5-1.0)		10:45	SW	500	None	1		X					
D15-BOR-21-(4.5-5.0)		11:15	SW	125	None	1	X			X	X		
D15-BOR-21-(6.0-6.5)		11:05	SW	125	None	1	X			X	X		
D15-BOR-21-(7.8-8.0)		11:25	SW	125	None	1	X			X	X		
D15-BOR-21-(8.0-8.3)		11:30	SW	125	None	1	X			X	X	Aquiford	
Turnaround Time Requested (please circle):	<input checked="" type="radio"/> Standard	RUSH	Number of days: 8			Special Instructions:							
Bottles Relinquished by:	Date 10/14/17 Time 1525			Bottles Received by:								Date:	Time:
Bottles Relinquished by:	Date 11/14/17 Time 12:00			Bottles Received by:								Date:	Time:
Bottles Relinquished by:	Date			Bottles Received by:								Date:	Time:
Bottles Relinquished by:	Date			Bottles Received by:								Date:	Time:



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Laboratories

## **Analysis Request / Environmental Services Chain of Custody**

1 of 1

For Eurofins Lancaster Laboratories Use Only

Group No. : 87/371 Sample Nos.

Group No.: (S-15) Sample No.:

Acct: 07032 SF: 285389 SCR No.: 0

Cooler Temperature upon receipt: 87

Analyses Report

## **Analyses Requested**

9300720-3

14474 Order No. 8

14474      Cooler No.:

\_\_\_\_\_ °C Containe

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127404 37630

37630



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Laboratories

## **Analysis Request / Environmental Services Chain of Custody**

1 of 1

MS | MSD 2

For Eurofins Lancaster Laboratories Use Only 0340276 75

Group No.: 187371 Sample Nos.: 4300126-36

Acct: 07032 SF: 285389 SCR No.: 214379 Cooler No.: C32257 37582  
Cooler Temperature upon receipt: 60 °C Container No.: 7



Lancaster  
Laboratories

## **Analysis Request / Environmental Services Chain of Custody**

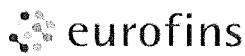
1 of 1

64  
11411 1871371

For Eurofins Lancaster Laboratories Use Only

Group No.: ~~187132~~ Sample Nos.: 93V0726-36

Acc't: 07032 SF: 285389 SCR No: 214397 Cooler No.: C29266 37628  
Cooler Temperature upon receipt: 16.8 °C Container No.: 3



Lancaster  
Laboratories

## **Analysis Request / Environmental Services Chain of Custody**

1 of 1

For Eurofins Lancaster Laboratories Use Only

Group No.: 187(37) Sample Nos.: A300726-31

Acct: 07032 SF: 285389 SCR No: 214379 Cooler No.: COOLER 37589  
Cooler Temperature upon receipt: 7.0 °C Container No.: 7

Client: Chambers Works**Delivery and Receipt Information**

Delivery Method: ELLE Courier Arrival Timestamp: 11/04/2017 13:40  
 Number of Packages: 2 Number of Projects: 1  
 State/Province of Origin: NJ

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Simon Nies (25112) at 14:32 on 11/04/2017

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	0.7	DT	Wet	Y	Bagged	N
2	DT42-01	1.0	DT	Wet	Y	Bagged	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mg</b>	milligram(s)
<b>C</b>	degrees Celsius	<b>mL</b>	milliliter(s)
<b>cfu</b>	colony forming units	<b>MPN</b>	Most Probable Number
<b>CP Units</b>	cobalt-chloroplatinate units	<b>N.D.</b>	non-detect
<b>F</b>	degrees Fahrenheit	<b>ng</b>	nanogram(s)
<b>g</b>	gram(s)	<b>NTU</b>	nephelometric turbidity units
<b>IU</b>	International Units	<b>pg/L</b>	picogram/liter
<b>kg</b>	kilogram(s)	<b>RL</b>	Reporting Limit
<b>L</b>	liter(s)	<b>TNTC</b>	Too Numerous To Count
<b>lb.</b>	pound(s)	<b>µg</b>	microgram(s)
<b>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
<b>meq</b>	milliequivalents	<b>umhos/cm</b>	micromhos/cm
<	less than		
>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.

Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.